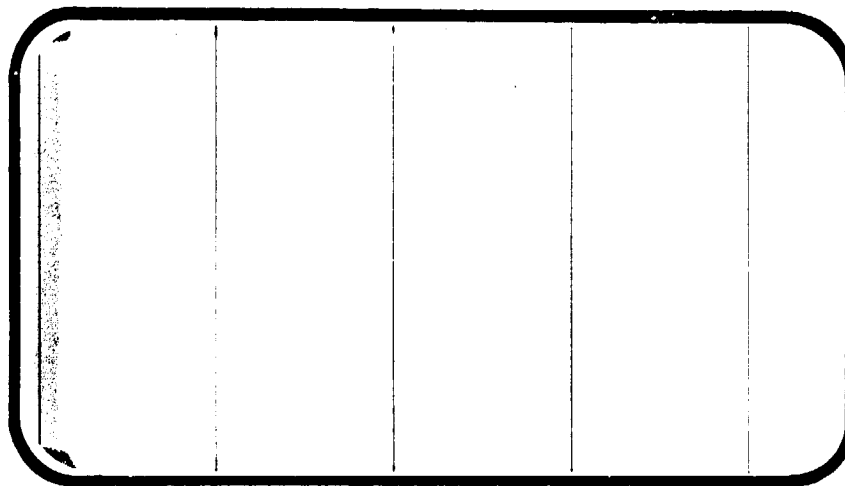




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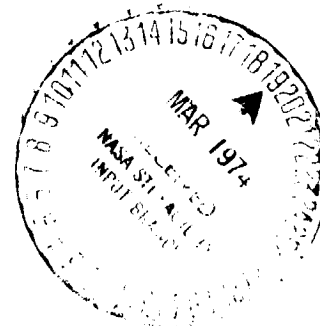
NASA-CR-128793) RESULTS OF LOW SPEED  
WIND TUNNEL TESTS ON A .0405 SCALE MODEL  
ROCKWELL SPACE SHUTTLE ORBITER TESTED  
BOTH IN FREE AIR AND IN THE (Chrysler  
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA Management services

SPACE DIVISION



CHRYSLER  
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RESULTS OF LOW SPEED  
WIND TUNNEL TESTS ON A .0405 SCALE MODEL  
ROCKWELL SPACE SHUTTLE ORBITER  
TESTED BOTH IN FREE AIR AND IN THE  
PRESENCE OF A GROUND PLANE  
(ØA16)

By

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Rockwell International

Prepared under NASA Contract Number NAS9-13247

by

Data Management Services  
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New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas



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TEST NUMBER: NAAL 701  
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RESULTS OF LOW SPEED  
WIND TUNNEL TESTS ON A .0405 SCALE MODEL  
ROCKWELL SPACE SHUTTLE ORBITER  
TESTED BOTH IN FREE AIR AND IN THE  
PRESENCE OF A GROUND PLANE

By R. Mennell and B. Cameron, Rockwell

ABSTRACT

Experimental aerodynamic investigations were conducted on an .0405 scale representation of the Space Shuttle Orbiter in the Rockwell International 7.75 x 11 Foot Low Speed Wind Tunnel during the time period March 21, to April 17, 1973. The primary test objectives were to investigate both the aerodynamic and propulsion effects of various air breathing engine systems in free air and in the presence of the ground.

The free air portion of this test investigated the aerodynamic effects of engine nacelle number, nacelle grouping, and nacelle location. For this testing the model was sting mounted on a six component internal strain gage balance entering through the model base. The model center of rotation was at the trailing edge of the wing enabling a free air angle of attack range of  $-4^{\circ} \leq \alpha \leq 24^{\circ}$ , at angles of sideslip of  $0^{\circ}$  and  $4^{\circ}$ , to be obtained. Yaw polars were recorded over the beta range of  $-12^{\circ} \leq \beta \leq 12^{\circ}$  at fixed angles of attack of  $0^{\circ}$ ,  $5^{\circ}$ ,  $10^{\circ}$ ,  $15^{\circ}$ , and  $18^{\circ}$ . Rudder deflections of  $0^{\circ}$ ,  $-7.5^{\circ}$ , and  $-15^{\circ}$ ; elevon deflections from  $+15^{\circ}$  to  $-15^{\circ}$ ; and aileron deflections of  $+5^{\circ}$ ,  $+10^{\circ}$ ,  $+15^{\circ}$  (elevon =  $0^{\circ}$ ),  $+7.5^{\circ}$  (elevon =  $+7.5^{\circ}$ ), and  $-7.5^{\circ}$  (elevon =  $-7.5^{\circ}$ ) were tested.

The ground plane portion of the aerodynamic test investigated the same aforementioned nacelle effects at ground plane locations of full scale W.P. = 239.9, 209.3, 158.9, 108.5, and 7.78 in. The model was supported in the same manner with the nominal angle of attack range being  $-4^{\circ} \leq \alpha \leq 24^{\circ}$ , except where ground plane limited. No sideslip data were recorded. Elevon deflections from  $15^{\circ}$  to  $-40^{\circ}$  and an aileron deflection of  $10^{\circ}$  (elevon =  $0^{\circ}$ ) were tested.

At the conclusion of the aerodynamic test period the propulsion effects of various nacelle locations and freestream orientations in the presence of the ground were investigated. This investigation consisted of positioning the engine nacelles at various chordwise positions and angles of sideslip and then recording the total pressure recovery-mass flow relationship at the compressor face station. Nacelle internal flow characteristics were calculated from two flow-metering rakes that could be positioned in any nacelle. Engine weight flows of .15, .25, .35, and .45 lbm/sec/eng. were simulated

by connecting the rake-containing nacelles to the NAAL blower system and setting predetermined pressure levels at the ASME nozzle throat.

As with the aerodynamic testing the model was sting mounted through the base. The nominal angle of attack range, with the center of rotation at the main gear axle, was  $-4^{\circ} \leq \alpha \leq 18^{\circ}$  at angles of sideslip of  $0^{\circ}$  and  $-10^{\circ}$ . Ground plane location for this test phase was at full scale W.P. = 153.7 in.

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## COEFFICIENTS SCHEDULE:

A:	CN, XCP/L, CLM vs. ALPHA	E:	DCY/DB, DCYNDB, DCBLDB vs. ALPHA
B:	CL, L/DF, CN, XCP/L, CLM, CAF, CAB vs. ALPHA	F:	DCY/DA, DCYNDA, DCBLDA vs. ALPHA
	CL vs. CLM, CL vs. CDF	G:	DCY/DR, DCYNDR, DCBLDR
C:	CY, CYN, CBL vs. ALPHA		
D:	CY, CYN, CBL vs. BETA		



NOMENCLATURE  
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C <sub>p</sub>	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; $V/a$
p		pressure; N/m <sup>2</sup> , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$ , N/m <sup>2</sup> , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
$\alpha$	ALPHA	angle of attack, degrees
$\beta$	BETA	angle of sideslip, degrees
$\psi$	PSI	angle of yaw, degrees
$\phi$	PHI	angle of roll, degrees
$\rho$		mass density; kg/m <sup>3</sup> , slugs/ft <sup>3</sup>

Reference & C.G. Definitions

Ab		base area; m <sup>2</sup> , ft <sup>2</sup>
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}$ <sub>REF</sub>	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SKEF	wing area or reference area; m <sup>2</sup> , ft <sup>2</sup>
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
$\infty$	free stream

# NOMENCLATURE (Continued)

## Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$C_N$	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
$C_A$	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_{A_b}$	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
$C_{A_f}$	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS_{REF}}$
$C_n$	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
$C_l$	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$

## Stability-Axis System

$C_L$	CL	lift coefficient; $\frac{\text{lift}}{qS}$
$C_D$	CD	drag coefficient; $\frac{\text{drag}}{qS}$
$C_{D_b}$	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_Y$	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
$C_m$	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS_{REF}}$
$C_n$	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
$C_l$	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
L/D	L/D	lift-to-drag ratio; $C_L/C_D$
L/D <sub>f</sub>	L/DF	lift to forebody drag ratio; $C_L/C_{D_f}$

# NOMENCLATURE

## ADDITIONS TO STANDARD LIST

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DESCRIPTION</u>
$X_{c.p.}/L_E$	XCP/L	aerodynamic center of pressure location in percent body length.
$\Lambda_{LE}$		wing sweep back angle, degrees.
$\delta_e$	ELEVON	elevon deflection angle, positive trailing edge down.
$\delta_a$	AILRON	aileron deflection angle, positive left trailing edge down.
$\delta_r$	RUDDER	rudder deflection angle, positive trailing edge left.
$\delta_{BF}$	B.FLAP	body flap deflection angle, positive trailing edge down.
$\Delta\delta_a$	DLTALN	incremental aileron deflection.
$\Delta\delta_r$	DLTRDR	incremental rudder deflection.
	NACX/L	air breathing engine nacelle longitudinal location in percent body length.
$\zeta_{NAC}$	LIP	sweepback angle of nacelle entrance lip.
	GP-POS	position of ground plane beneath the model.
$C_{Y\beta}$	DCY/DB	side force derivative with beta, per degree.
$C_{n\beta}$	DCYNDB	yawing moment derivative with beta, per degree.
$C_{l\beta}$	DCBLDB	rolling moment derivative with beta, per degree.
$C_{Y\delta_a}$	DCY/DA	side force derivative with aileron deflection, per degree.
$C_{n\delta_a}$	DCYNDA	yawing moment derivative with aileron deflection, per degree.

$C_{l\delta_a}$	DCBLDA	rolling moment derivative with aileron deflection, per degree.
$C_{Y\delta_r}$	DCY/DR	side force derivative with rudder deflection, per degree.
$C_{n\delta_r}$	DCYNDR	yawing moment derivative with rudder deflection, per degree.
$C_{l\delta_r}$	DCBLDR	rolling moment derivative with rudder deflection, per degree.

#### NOMENCLATURE - PROPULSION DATA

<u>SYMBOL</u>	<u>DEFINITION</u>
CPSI1	Inboard nacelle static pressure coefficient #1.
CPSI2	Inboard nacelle static pressure coefficient #2.
CPSI	Inboard nacelle average static pressure coefficient.
CPSO1	Outboard nacelle static pressure coefficient #1.
CPSO2	Outboard nacelle static pressure coefficient #2.
CPSO	Outboard nacelle average static pressure coefficient.
CWIM	Inboard ASME nozzle corrected weight flow, lbm/sec.
CWOM	Outboard ASME nozzle corrected weight flow, lbm/sec.
MFRI	Inboard nacelle mass flow ratio.
MFRO	Outboard nacelle mass flow ratio.
MIN	Inboard nacelle compressor face Mach number.
MON	Outboard nacelle compressor face Mach number.
PRTI1-9	Inboard nacelle total pressure recoveries, probes 1-9.
PRT01-9	Outboard nacelle total pressure recoveries, probes 1-9.
PRTI	Inboard nacelle integrated total pressure recovery.
PRT0	Outboard nacelle integrated total pressure recovery.
PSI1	Inboard nacelle static pressure #1, lbf/ft <sup>2</sup> .
PSI2	Inboard nacelle static pressure #2, lbf/ft <sup>2</sup> .
PSI	Inboard nacelle average static pressure, lbf/ft <sup>2</sup> .

PS01	Outboard nacelle static pressure #1, lbf/ft <sup>2</sup> .
PS02	Outboard nacelle static pressure #2, lbf/ft <sup>2</sup> .
PS0	Outboard nacelle average static pressure, lbf/ft <sup>2</sup> .
PT11-9	Inboard nacelle total pressure, probes 1-9, lbf/ft <sup>2</sup> .
PT01-9	Outboard nacelle total pressure, probes 1-9, lbf/ft <sup>2</sup> .
PT1	Inboard nacelle integrated total pressure.
PT0	Outboard nacelle integrated total pressure.
WIC	Inboard nacelle compressor face weight flow, lbm/sec.
WOC	Outboard nacelle compressor face weight flow, lbm/sec.
WIM	Inboard ASME nozzle uncorrected weight flow, lbm/sec.
WOM	Outboard ASME nozzle uncorrected weight flow, lbm/sec.
WC	Ideal weight flow, lbm/sec.
W.F.	simulated engine weight flow, lbm/sec/eng.
NBT	Angle of side slip for engine nacelle.
X/L	Position of engine nacelle in per cent of body length.
GPP	Position of ground plane beneath model.
POWER	Engine number with simulated power. Engines are numbered left to right with left most engine numbered 1.
RD	Data reduction constant.

#### MODEL DESCRIPTION

The model used for this test was an .0405 scale representation of the Rockwell International (-89) Light Weight Space Shuttle Orbiter. The basic model is of the blended wing-body design utilizing a double delta wing (75°/45°  $\Lambda_{LE}$ ), full span elevons (unswept hingeline), a centerline vertical tail with rudder and/or rudder flare capability, and an orbital maneuvering system (OMS) mounted on the aft fuselage sidewalls. To complete the basic configuration a canopy and manipulator arm housing (MAH) attach to the fuselage upper surface. For this test subsonic jet engine nacelles were located in various positions on the wing and fuselage to simulate the orbiter air breathing engine systems (ABES).

All model components were per the -89 configuration except for the fuselage lines from station 1307 aft and the OMS pods. The aerodynamic variation due to these non-89 components was considered to be insignificant. The following nomenclature was used to designate the various model components:

<u>COMPONENT</u>	<u>DESCRIPTION</u> (see dimensional data)
B10	ATP fuselage modified fwd. of sta. 1307 to reflect -89 lines.
B10	Same as B10 except base area in OMS region has been reduced.
C5	-89 canopy.
D7	-89 manipulator arm housing.
E18	Full span elevator used on wing W87
F1	Fuselage body flap.
G1	Landing gear and gear doors (ATP location)
G10	Same as G1 except main gear doors moved inboard.
J1	4 engine nacelles located per VL73-000039.
J1	Same as J1 except short cowl added.
J3	Same as J1 except pylon fairings added.
J4	2 inboard nacelles same as J3, 2 nacelles located on rear fuselage sidewalls at sta. 1100, W.P. 410.
J5	4 engine nacelles same as J3, 2 engine nacelles located at sta 1077, B.P. $\pm$ 810.
J6	4 engine nacelles same as J3, 2 engine nacelles located on rear fuselage sidewalls at sta. 1100, W.P. 410.
J7	3 groups of three clustered engine nacelles located at sta. 1077, B.P. $\pm$ 810.
M	OMS pods (FRR)
R5	-89 rudder used on vertical tail V4.
V5	-89 centerline vertical tail.

W87 -89 double delta wing ( $75^\circ/45^\circ A_{LE}$ ).

X9 Transition grit located on all swept surfaces and fuselage nose.

X10 Same as X9 except grit added to engine nacelles.

#### TEST FACILITY DESCRIPTION

The North American Aerodynamic Laboratory (NAAL) 7.75 x 11-Foot Wind Tunnel is a continuous flow, closed circuit, single return type tunnel capable of speeds up to 300 miles per hour. The test section is vented to atmospheric pressure and is 7.75 x 11 feet wide by 11 feet in length. Power is supplied by a 1250 horsepower nacelle mounted synchronous motor driving a 19 foot, seven blade, laminated birch propeller. The airspeed is controlled by varying the degree of coupling between the motor and propeller by means of a magnetic clutch. A damping screen and honeycomb section in the settling chamber upstream from the contraction cone (ratio 7.53 to 1) minimizes turbulence in the test section. The NAAL Wind Tunnel has been in operation since June 1943 and calibrations are available over a wide range of test conditions.

Tests may be conducted using a variety of mounting systems, e.g.; a single strut, double strut, sting strut, reflection plane, cable suspension, and two dimensional wall. Aerodynamic data may be measured by a planar type external balance system or sting mounted internal balances. An Astrodata Automatic Data Acquisition System is used to collect, multiplex, digitize, and record 50 channels of force and/or pressure data on magnetic tape. This data is then rapidly reduced and plotted using automatic data processing equipment and an automatic digital plotter.

#### DATA REDUCTION - AERODYNAMIC DATA

The aerodynamic force and moment data presented were measured by the Task Corporation 1.5 inch MK IX strain gage balance. The data have been corrected for model base and balance chamber pressure effects; nacelle internal drag; model blockage influence on tunnel dynamic pressure; wall interference effects; sting and balance deflections; and model weight tare.

The corrections to axial force were accomplished in the following manner:

$$C_{A_P} = C_A - C_{A_{BC}} - C_{A_B} - C_{A_N} - C_{A_T}$$

where:

$$C_{A_{BC}} = - \left( \frac{P_{BC} - P_o}{q} \right) \left( \frac{A_{BC}}{S_W} \right)$$

and:

$$C_{A_B} = - \left( \frac{P_B - P_o}{q} \right) \left( \frac{A_B}{S_W} \right), P = 1/5 (P_{B1} + P_{B2} + \dots + P_{B5})$$

$C_{A_N}$  = Nacelle internal drag correction

$C_{A_T}$  = Model axial force weight tare

The following reference dimensions were used for reducing the aerodynamic data to coefficient form:

<u>Symbol</u>	<u>Definition</u>	
$A_B$	Area of base (without OMS), ft <sup>2</sup>	0.37400
	(with OMS), ft <sup>2</sup>	0.51939
$A_{BC}$	Area of balance cavity, ft <sup>2</sup>	0.13635
$S_W$	Area of wing, ft <sup>2</sup>	4.4123
$XMRP$	Center of gravity, fus. sta.	43.5974
$ZMRP$	Center of gravity, waterplane	16.1000
$L$	Length of body, in.	53.7840
$\bar{c}$ (LREF)	Wing MAC, in.	19.3000
$\bar{b}$ (BREF)	Wing span, in.	37.9350
$C_{A_N}$	= Axial force correction due to J <sub>1</sub> nacelle internal drag	0.00129
	Axial force correction due to J <sub>2</sub> nacelle internal drag	0.00129
	Axial force correction due to J <sub>3</sub> nacelle internal drag	0.00129
	Axial force correction due to J <sub>4</sub> nacelle internal drag	0.00129
	Axial force correction due to J <sub>5</sub> nacelle internal drag	0.00194
	Axial force correction due to J <sub>6</sub> nacelle internal drag	0.00194
	Axial force correction due to J <sub>7</sub> nacelle internal drag	0.00194



$C_{mN}$	= Pitching moment correction due to $J_1$ nacelle internal drag	0.0004
	Pitching moment correction due to $J_2$ nacelle internal drag	0.0004
	Pitching moment correction due to $J_3$ nacelle internal drag	0.0004
	Pitching moment correction due to $J_4$ nacelle internal drag	0.0006
	Pitching moment correction due to $J_5$ nacelle internal drag	0.0004
	Pitching moment correction due to $J_6$ nacelle internal drag	0.0007
	Pitching moment correction due to $J_7$ nacelle internal drag	0.0006

#### DATA REDUCTION - PROPULSION DATA

The air breathing engine system propulsion data was recorded from flow metering rakes installed in two engine nacelles. Each rake consisted of 9 total pressure tubes and 3 static orifices. Each instrumented nacelle was connected to the NAAL blower system in order to simulate engine weight flows.

The data reduction procedure was as follows:

Procedure #1 Calculate the inboard nacelle static pressure coefficients:

$$CPSI1 = \text{inboard nacelle static pressure coefficient \#1}$$

$$= \frac{PSI1 - PO}{q}, \text{ where}$$

$PSI1$  = Inboard nacelle static pressure #1  
 $PO$  = Freestream static pressure  
 $q$  = Freestream dynamic pressure

then calculate

$CPSI2$  = Inboard nacelle static pressure #2  
 $CPSO1$  = Outboard nacelle static pressure #1  
 $CPSO2$  = Outboard nacelle static pressure #2

Procedure #2 Calculate the inboard nacelle average static pressure coefficients:

$$CPSI = \frac{CPSI1 + CPSI2}{2}$$

then calculate

CPSO = Outboard nacelle average static pressure coefficient

Procedure #3 Calculate the inboard nacelle total pressure recoveries:

PRTI1 = Inboard nacelle total pressure recovery of tube #1

= PII1/PT, where

PII1 = Total pressure inboard nacelle tube #1

PT = Freestream static pressure

then calculate

PRTI2 9, Inboard nacelle total pressure recoveries, tubes 2 9

PRT01 9, Outboard nacelle total pressure recoveries, tubes 1 9

Procedure #4 Calculate the integrated inboard nacelle total pressure recoveries:

PRTI = Inboard nacelle integrated total pressure recovery

$$= \left[ \sum_{i=1}^9 (PII_i) (A_i) \right] / \left[ \left( \sum_{i=1}^9 A_i \right) (PT) \right]$$

then calculate

PRT0 = Outboard nacelle integrated total pressure recovery

Procedure #5 Calculate the inboard nacelle compressor face Mach number:

MIN = Inboard nacelle Mach number

$$= \left[ 5 \left( \frac{PSI1 + PSI2}{2(PRTI * PT)} \right)^{-\frac{1}{3.5}} - 5 \right]^{1/2}$$

then calculate

MON = Outboard nacelle Mach number

Procedure #6 Calculate the inboard nacelle weight flow:

$$WIC = \text{Inboard nacelle weight flow, lbm/sec}$$

$$= \frac{ACF (PRTI * PT)(MIN)}{(1 + .2MIN^2)^3} \sqrt{\frac{\gamma g}{RT_{TO}}}, \text{ where}$$

ACF = Compressor face area  
 $\gamma$  = Ratio of specific heats, for air = 1.4  
 $g$  = Gravitational constant = 32.174 ft/sec.<sup>2</sup>  
 $R$  = Gas constant = 53.35 ft-lb/lb/°R

then calculate

WOC = Outboard nacelle weight flow

Procedure #7 Calculate the weight flow for the inboard and outboard ASME nozzles using standard wind tunnel equations:

WIM = Inboard ASME nozzle weight flow, lbm/sec.  
 WOM = Outboard ASME nozzle weight flow, lbm/sec.

Procedure #8 Connect the inboard ASME nozzle weight flow for temperature and pressure variation:

$$CWIM = \text{Corrected inboard ASME nozzle weight flow, lbm/sec.}$$

$$= \frac{WIM}{\delta} \sqrt{\theta}, \text{ where}$$

$$\theta = T_{TO}/518.7$$

$$\delta = (PRTI * PT)/2116.22$$

then calculate

CWOM = Corrected outboard ASME nozzle weight flow, lbm/sec.

Procedure #9 Calculate inboard nacelle mass flow ratio:

MFRI = Inboard nacelle mass flow ratio

$$= \frac{WIC}{WC}, \text{ where}$$

WC = Ideal weight flow, lbm/sec.

$$= \frac{(AC)(PT)(MO)}{(1 + .2 MO^2)^3} \sqrt{\frac{\gamma g}{RT_{TO}}}, \text{ where}$$

AC = Nacelle capture area, ft.<sup>2</sup>  
 MO = Freestream Mach number

The following reference dimensions were used for reducing the propulsion data to coefficient form:

<u>Symbol</u>	<u>Definition</u>	
A <sub>1</sub>	Area of influence probe #1, ft. <sup>2</sup>	0.002637
A <sub>2</sub>	Area of influence probe #2, ft. <sup>2</sup>	0.001013
A <sub>3</sub>	Area of influence probe #3, ft. <sup>2</sup>	0.000190
A <sub>4</sub>	Area of influence probe #4, ft. <sup>2</sup>	0.000760
A <sub>5</sub>	Area of influence probe #5, ft. <sup>2</sup>	0.002637
A <sub>6</sub>	Area of influence probe #6, ft. <sup>2</sup>	0.001013
A <sub>7</sub>	Area of influence probe #7, ft. <sup>2</sup>	0.000760
A <sub>8</sub>	Area of influence probe #8, ft. <sup>2</sup>	0.001013
A <sub>9</sub>	Area of influence probe #9, ft. <sup>2</sup>	0.002637
ACF	Area of compressor face, ft. <sup>2</sup>	0.012665
AC1	Nacelles J <sub>1</sub> , J <sub>3</sub> , J <sub>6</sub> capture area, ft. <sup>2</sup>	0.014314
AC2	Nacelle J <sub>2</sub> capture area, ft. <sup>2</sup>	0.016551

TABLE I  
FREE AIR AERODYNAMIC EFFECTS

TEST: OA 16 - NAAL 701										DATE: 3/21 - 4/17/73										
DATA SET/RUN NUMBER COLLATION SUMMARY																				
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS					
		$\alpha$	$\beta$	$\delta R$	$\delta C$	$\delta A$	$\delta R$	$\delta C$	$\delta A$	$\delta R$	$\delta C$	$\delta A$	20		1	2	3	4	5	
FDN001	B <sub>10</sub> C <sub>5</sub> D <sub>7</sub> M <sub>6</sub> F <sub>1</sub> W <sub>87</sub> V <sub>5</sub>	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
002	E <sub>10</sub> C <sub>3</sub> D <sub>7</sub> M <sub>6</sub> F <sub>1</sub> W <sub>87</sub> V <sub>5</sub> X <sub>7</sub>																			
003	B <sub>10</sub> C <sub>5</sub> D <sub>7</sub> M <sub>6</sub> F <sub>1</sub> W <sub>87</sub> V <sub>5</sub> X <sub>7</sub>																			
004																				
005																				
006																				
007																				
008																				
C11	B <sub>10</sub> C <sub>5</sub> D <sub>7</sub> M <sub>6</sub> F <sub>1</sub> W <sub>87</sub> V <sub>5</sub> X <sub>10</sub>	A	0	-18																
120																				
C12																				
C13																				
C14																				
C15																				
C16																				
C17																				
C18																				
C19																				
C20																				
C21																				
C22																				
C23																				

TEST RUN NUMBERS																				
7	8	11	120	12	13	14	15	16	41	42	43									

TABLE I (CONTINUED)

TEST: DA16 - NAAL 701		DATA SET RUN NUMBER COLLATION SUMMARY										DATE 3/21 - 4/17/73					
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH. NUMBERS		
				A	B	DEF	DE	LA	CR	NAS	LIP	NAE	BETA	X/E			
RDW044	BULSD7F-JSWAT18V5X10	5	F	-18	0	0	0	4°	0°							20	
045		10														44	
046		15														45	
047		18														46	
087		A	D													47	
088		4														87	
089		D	F													88	
090		5														89	
091		10														90	
092		15														91	
093		18														92	
009	BULSD7F-JSWAT18V5X10	A	D	5										0		93	
017				-5												9	
015				-10												17	
024				0	5											18	
020				7.5	7.5											24	
021				-7.5	-7.5											20	
022				0	-10											21	
																22	
														55	51	57	70
														DIFFERENCE			
														SCHEDULE			
														SCHEDULE			

TABLE I (CONTINUED)

TEST: DA16 - NAAL 701										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 3/21 - 4/17/73	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS						
		$\alpha$	$\beta$	$\delta$	$\epsilon$	$\phi$	$\theta$	$\psi$	$\chi$	$\eta$	$\zeta$	$\xi$	$\gamma$								
RDN023	BUCSD7FJ3W0E1B15X10	A	0	-13	0	10	0	4°	0°	0						20					
019						15										23					
040					5	0										19					
043					-5											40					
049					-10											43					
055					0	5										49					
051					7.5	7.5										55					
052					-7.5	-7.5										51					
053					0	-10										52					
054					1	10										53					
050					2	15										54					
078					5	0										50					
080					-5											78					
081					-10											80					
079					1	5										81					
084					7.5	7.5										79					
085					-7.5	-7.5										84					
082					0	-10										85					
																82					
TEST RUN NUMBERS																					
1	7	13	19	25	31	37	43	49	55	61	67	73	79								
COEFFICIENTS																					
$\alpha$ OF $\beta$ SCHEDULES																					

TABLE I (CONTINUED)

TEST: 0A16 - UAAL 7C1										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 3/21 - 4/17/73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS		TEST RUN NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
				$\alpha$	$\beta$	S	B	F	D	E	C	A	D	R	U	S	B	E	T																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								



TABLE I (CONTINUED)

TEST: 0A16 - NAAL 701		DATA SET/RUN NUMBER COLLATION SUMMARY												DATE: 3/21 - 4/17/73											
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		TEST RUN NUMBERS								
		$\alpha$	$\beta$	S	B	F	C	C	A	JE	RIP	RIP	RIP												
RDV064	BudSD7FJ3W01K8X4	0	F	-13	0	0	0	0	0	7.5	4°	0	.10			120									
065		5														64									
066		10														65									
067		15														66									
068		13														67									
069		A	D							-15						68									
057		4														56									
058		D	F													57									
059		5														58									
060		10														59									
061		15														60									
062		13														61									
094		A	D							-7.5			.25			62									
095		4														94									
096		D	F													95									
097		5														96									
098		10														97									
099		15														98									
																99									
1		7		13		19		25		31		37		43		49		55		61		67		75	76
		COEFFICIENTS										IDVAR (1)		IDVAR (2)		IDVAR (3)									
		SCHEDULES																							

TABLE 1 (CONTINUED)

TEST: CA16 - NAAL 701		DATA SET RUN NUMBER COLLATION SUMMARY										DATE: 3/21 - 4/17/73	
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS
		SCHED.	A	B	C	D	E	F	G	H	I		
RDN100	BULSDIFJ3WBT5RSX0	18	F	7.5	0	0	0	0	0	0	0		
101		A	0										.20
102		4											100
103		D	F										101
104		S											102
105		10											103
106		15											104
107		18											105
113	BULSDIFJ3W37X10	D	F										106
114		S											107
115		10											113
116		15											114
117		18											115
037		A	4										116
070		D	F										117
071		S											037
072		10											070
073		15											071
													072
													073
TEST RUN NUMBERS													
1	7	13	19	25	31	37	43	49	55	61	67	73	76
SCHEDULES													
SCHEDULES													

TABLE I (CONTINUED)

TEST: DA16 - UAAL 701		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 3/21 - 4/17/23	
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS
		SCHD.	$\alpha$	$\beta$	$\delta$	$\epsilon$	$\zeta$	$\eta$	$\theta$	$\phi$	$\psi$		
RDND74	BuLSDnFJ3WBTX10	13	F	-18	0	0	0	4°	0	.10	.25		20
108		0											74
109		5											100
110		10											109
111		15											110
112		15											111
03E	BuLSDnFJ3WBTX10	A	0	5						0	.10		112
039										.10	.25		33
077										.25	.25		39
121	BuLSDnFJ3WBTX10			0						0	.10		77
075										.10	.25		121
076										.25	.25		75
122	BuLSDnFJ3WBTX10												76
123	BuLSDnFJ3WBTX10			5									122
124	BuLSDnFJ3WBTX10			5									123
126				-5									124
127				-10									126
161				-15									127
													161
TEST RUN NUMBERS													
7	13	19	25	31	37	43	49	55	61	67	73	75	76
COEFFICIENTS													
$\alpha$ OR $\beta$ SCHEDULES													

TABLE I (CONTINUED)

TEST: DAILG - NAAL 701		DATA SET RUN NUMBER COLLATION SUMMARY										DATE: 3/21- 4/17/73		
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		SCMD.	α	β	γ	δ	ε	ζ	η	θ	ι			
RDN 131	BuLSDFWBFVKSX9	A	0	18	7.5	7.5	0						120	
132					-7.5	-7.5							131	
128					0	-10							132	
129						10							128	
130						15							129	
140	BuLSDFWBFVKSX9				0	-7.5							130	
141			4										140	
142			0	F									141	
143			5										142	
144			10										143	
145			15										144	
146			18										145	
147			A	0		-15							146	
148				4									147	
149			0										148	
150			5										149	
151			10										150	
152			15										151	
													152	
TEST RUN NUMBERS														
1	7	13	19	25	31	37	43	49	55	61	67	73	75	76
COEFFICIENTS														
α OR β SCHEDULES														
IDVAR (1) IDVAR (2) NO.														

TABLE I (CONTINUED)

[illegible]

TABLE I (CONTINUED)

TEST : OA16 - NAAL 701		DATA SET / RUN NUMBER COLLATION SUMMARY												DATE : 3/2 - 4/17/73			
DATA SET IDENTIFIER	CONFIGURATION	SCPD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		
		$\alpha$	$\beta$	C	EF	de	FA	de	FA	de	FA	de	FA		de	FA	
RDN153	BuL5D7FWB7V5X9	B	F	-13	0	0	0	-15	0	0	0	0	0	0	0	120	153
133	BuL5D7FWB7V5X9	A	0					0								133	134
134			4													135	136
135		0	F													137	138
136		5														139	154
137		10														155	156
138		15														157	158
139		18														158	165
154	BuL5D7FWB7V5X9	0														166	167
155		5														167	168
156		10														168	169
157		15															
158		18															
165	BuL5D7FWB7V5X9	A	0					4°	0°								
166			4														
167		0	F														
168		5															
169		10															
TEST RUN NUMBERS																	
1	7	13	19	25	31	37	43	49	55	61	67	73	76				
COEFFICIENTS																	
IDVAR (1) IDVAR (2) IDVAR (3)																	
SCHEDULES																	

TABLE I (CONTINUED)

TEST: OALG - MPAL 701										DATA SET RUN NUMBER COLLATION SUMMARY										DATE: 3/21 - 4/17/73									
DATA SET IDENTIFIER	CONFIGURATION	SCHED.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS														
		A	B	18F	18E	18F	18G	18H	18I	18J	18K	18L	18M																
R20170	BULSD7F74W7VSX10	15	F	-13	0	0	0	0	0	0	0	0	0	0	170	170													
171		13	F												171	171													
174	BULSD7F74W7VSX10	A	0		5										174	174													
172					-5										172	172													
175					-10										175	175													
173					0	5									173	173													
178					7.5	7.5									178	178													
179					7.5	7.5									179	179													
187	BULSD7F74W7VSX10	A	0		0	0	-7.5								187	187													
188			4												188	188													
189			0	F											189	189													
190		5													190	190													
191		10													191	191													
192		15													192	192													
193		15													193	193													
194		A	0			-150									194	194													
195			4												195	195													
196		0	F												196	196													
7	13	19	25	31	37	43	49	55	61	67	73	79	85	91	97	103													
COEFFICIENTS																													
SCHED. 100																													

TABLE I (CONTINUED)

TEST : 0A16 - NAAL 901

DATE : 3/21 - 4/17/73

DATA SET RUN NUMBER COLLATION SUMMARY

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		a	B	DBE	dc	da	dr	HP	VAR	VAR	VAR	HP	HP			
RDW197	BWLSDFJ4W37V5RSX10	5	F	-13	0	0	-15	4°	0°	49				197	200	
198		10														
199		15												199		
200		13												200		
201	BWLSDFJ4W37V5RSX10	0					0							201		
202		5												202		
203		10												203		
204		15												204		
205		13												205		
206	BWLSDFJ4W37V5RSX10	A	0											206		
207	BWLSDFJ4W37V5RSX10			5										207		
342	BWLSDFJ5W37V5RSX10			0										342		
343	BWLSDFJ5W37V5RSX10	A	0											343		
344		0	J											344		
345		5												345		
346		10												346		
347		15												347		
348		13												348		

1

7

13

19

25

31

37

43

49

55

61

67

75

76

TEST RUN NUMBERS

α OR β

β(J) = -4, 0, 4, 8, 12

SCHEDULES

COEFFICIENTS

IDVAR (1)IDVAR (2)NDV



TABLE I (CONTINUED)

TEST: DA16 - NAAL 7.1										DATE: 3/21 - 4/17/73									
DATA SET / RUN NUMBER COLLATION SUMMARY																			
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES								NO. OF RUNS	MACH NUMBERS						
		$\alpha$	$\beta$	SB	$\phi$	JA	CR	NAAL LIP	NAAL BETA	NAAL X/L									
R2A1349	BuLSd7FJ5G2W87K5X10	A	0	-13	5	0	0	4°	0	0			20						
350					15								349						
351					-15								350						
352					0	10							351						
357	BuLSd7FJ6G2W87K5X10					0					49		352						
358		0	J										357						
359		5											358						
360		10											359						
361		15											360						
362		13											361						
366	BuLSd7FJ6G2W87K5X10	A	0	5									362						
364					15								366						
365					-15								364						
363					0	10							365						
367	BuLSd7FJ6G2W87K5X10					0							363						
331	BuLSd7FJ7G2W87K5X10										0		367						
332		0	F										331						
333		10											332						
													333						
1	7	13	19	25	31	37	43	49	55	61	67	75	76						
COEFFICIENTS																			
IDVAR (1) IDVAR (2) IDVAR (3)																			
SCHEDULES																			
$\alpha$ OR $\beta$																			

TABLE I (CONTINUED)

TEST: DA16 - NAAL 701		DATA SET RUN NUMBER COLLATION SUMMARY												DATE: 3/21 - 4/17/93		
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		A	B	DEF	SE	SA	SR	NAAL LIP	NAAL BETA	NAAL X/L						
RDN 334	BuLSDrFJ7g2W07V5X10	15	F	-15	0	0	0	0	0	0				120		
335		13	↓		↓									334		
339		A	0		5									335		
338					15									339		
337					-15									334		
336					0	10								337		
340	BuLSDrFJ7g2W07V5X10				↓	0								336		
														340		
RDN 159	BuLSDrM2FWB7V5X9	A	0	-15	0	0	0	-	-	-				159		
RDN 176	BuLSDrFJ7g2W07V5X10	A	0	-15	0	10	0	4	0	49				176		
RDN 177		A	0	-15	0	15	0	4	0	49				177		
RDN 180		A	0			0								180		
181		↓	4											181		
182		0	F											182		
183		5												183		
184		10												184		
185		15												185		
186		18	↓											186		
TEST RUN NUMBERS																
1	7	13	19	25	31	37	43	49	55	61	67	75	76			
COEFFICIENTS																
α OR β SCHEDULES																

TABLE 1 (CONTINUED)

## GROUND PLANE AERODYNAMIC EFFECTS

TEST: DA16 - NAAL 701		DATA SET/RUN NUMBER COLLATION SUMMARY														DATE: 3/21 - 4/17/73	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		
		$\alpha$	$\beta$	SE	SA	SR	MAR	MAR	MAR	GR							
PD129.0B	BWLSDFE16W15X9	B	0	-13	0	0	-	-	-	-	240.		16.5				
218	BWLSDFE16W15X9	1											20.5				
219	BWLSDFE16W15X9	C											21.8				
209	BWLSDFE16W15X9	B		5									21.9				
210				10									21.0				
211				15									21.1				
212				-10									21.2				
213				-20									21.3				
214				-30									21.4				
215				-40									21.5				
216				0	5								21.6				
217				0	15								21.7				
220	BWLSDFE16W15X10	B			0		4°	0°					22.0				
221	BWLSDFE16W15X10	B											22.1				
222	BWLSDFE16W15X10			5									22.2				
224				15									22.4				
225				-20									22.5				
226				0	10								22.6				
1	7	13	19	25	31	37	43	49	55	61	67	75	76				
CF		100M	100M	100M	100M	100M	100M	100M	100M	100M	100M	100M	100M	100M			
		COEFFICIENTS										IDVAR (1) 10 45 (2) 100					
		SCHEDULES										X(18) = 1, 2, 14, 16, 18, 20, 22, 24					

TABLE 1 (CONTINUED)

TEST: CIA16 - JUAL 7C1		DATA SET/RUN NUMBER COLLATION SUMMARY														DATE: 3/21 - 4/17/73	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		
		A	B	C	D	E	F	G	H	I	J	K	L		M		
296	BULSDNFJTSWVSX10	D	0	-15	0	0	0	4°	0	0	0	0	24		165	296	
297	BULSDNFJTSWVSX10	B													297	297	
299	BULSDNFJTSWVSX10														299	299	
300															300	300	
298															298	298	
301															301	301	
307	BULSDNFJTSWVSX10	D													307	307	
306	BULSDNFJTSWVSX10	B													306	306	
305	BULSDNFJTSWVSX10														305	305	
304															304	304	
302															302	302	
302															302	302	
233	BULSDNFJTSWVS19	H													233	233	
234	BULSDNFJTSWVS19	D													234	234	
235	BULSDNFJTSWVS19														235	235	
236															236	236	
237															237	237	
238															238	238	
TEST RUN NUMBERS																	
7	13	19	25	31	37	43	49	55	61	67	75	76					
COEFFICIENTS																	
IDVAR (1) IDVAR (2) NOV																	
SCHEDULES																	
X(H) = -3, -2, -1, 0, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24																	
a OF B																	

TABLE I (CONTINUED)

TEST: DA16 - UAAL 701		DATA SET/RUN NUMBER COLLATION SUMMARY														DATE: 3/21 - 4/17/73	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		TEST RUN NUMBERS
		$\alpha$	$\beta$	CBF	de	JA	JE	W	W	W	W	W	W				
RDN232	BuLSd7FiJgW87V5X10	G	0	-13	0	0	0	4°	0	0	0	0	0		105		
231	BuLSd7FiJgW87V5X10	A			5										232		
230	BuLSd7FiJgW87V5X10				15										231		
229					-20										230		
228					0	10									229		
227						0									228		
295	BuLSd7FiJgW87V5X10	G				0									227		
294	BuLSd7FiJgW87V5X10	E													295		
292	BuLSd7FiJgW87V5X10				5										294		
291					15										292		
290					0	10									293		
309	BuLSd7FiJgW87V5X10	I				0									290		
310	BuLSd7FiJgW87V5X10	E													309		
311	BuLSd7FiJgW87V5X10				5										310		
312					15										311		
313					-20										312		
314					0	10									313		
243	BuLSd7FiJgW87V5X9	I				0							159.		314		
															243		
		7	13	19	25	31	37	43	49	55	61	67	75.76				
		COEFFICIENTS												IDVAR (1) 1. VAR (2) NDV			
		$\alpha(L) = +3, 10, 12, 14, 15, 16, 20, 22, 23$												$\alpha(E) = 0, 1, 2, 4, 5, 8, 10, 12, 14, 15, 16, 20, 22, 23$			
		$\alpha(L) = 4, 6, 8, 10, 12, 14, 15, 16, 20, 22, 23$															
		SCHEDULES															

TABLE 1 (CONTINUED)

TEST: DATA - NAAL 751										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 3/21 - 4/17/73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
DATA SET IDENTIFIER		CONFIGURATION		SCHD.		PARAMETERS/VALUES										NO. OF RUNS		MACH NUMBERS		TEST RUN NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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DATE: 3/21 - 4/17/73

α OF β  
SCHEDULES

TABLE I (CONTINUED)

TEST: UA16 - NAAAL 701		DATA SET/RUN NUMBER COLLATION SUMMARY														DATE 3/21 - 4/17/73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		$\alpha$	$\beta$	K	B	F	S	E	S	A	S	R	H		P	B	E	T	A	X	Y	Z	G	P																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
RM322	BuLSdnFJsgnW87V5X9	A	0	7	18	15	0	0	0	0	4	0	0	0	109																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											





STEELE, RICHARD ARTHUR, 200045

• 47





TABLE I (CONTINUED)

[illegible]

TABLE I (CONTINUED)

TEST: $\phi A 16 - 11A \dots 70$										DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: 3/21 - 4/17/73	
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS		TEST RUN NUMBERS				
		$\alpha$	$\beta$	$NAC$	$NAC$	$NAC$	$NAC$	$NAC$	$NAC$	$NAC$	$NAC$	$NAC$	$NAC$		$NAC$						
EDN398	B16C5D7J292W57	K	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0°	0	.12	.165	.20			
399																398					
400																399					
401																400					
402																	401				
403																	402				
404																	403				
405																	404				
406																		405			
407																		406			
408																		407			
466																		408			
475																475		466			
476																476					
477																477					
478																478					
474																	474				
473																	473				
1	7	13	19	25	31	37	43	49	55	61	67	75	76								
														COEFFICIENTS							
														IDVAR (1) IDVAR (2) NDV							
														SCHEDULES							
														$\alpha$ OR $\beta$							

TABLE I (CONCLUDED)

[illegible]

TABLE II.

[illegible]



TABLE III.

## MODEL COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: BODY - BID (RELATIVE DIMENSIONS)GENERAL DESCRIPTION: - 89 BARE FUSELAGESCALE MODEL = .0405DRAWING NUMBER: VL72-000001  
VL76-000093

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ $\text{IN.}$	<u>1328.80</u>	<u>52.176</u>
Max. Width	<u>          </u>	<u>          </u>
Max. Depth ~ $\text{IN.}$	<u>248.00</u>	<u>10.044</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area ~ $\text{ft}^2$		
Max. Cross-Sectional	<u>355.25</u>	<u>0.593</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III (CONTINUED)

MODEL COMPONENT: BODY - B16GENERAL DESCRIPTION: SAME AS BODY B10 EXCEPT MODIFIED IN  
BASE REGION.SCALE MODEL = .0405DRAWING NUMBER:VL70-000073VL72-000051DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN.	<u>1325.30</u>	<u>53.796</u>
Max. Width ~ IN.	<u>          </u>	<u>          </u>
Max. Depth	<u>248.00</u>	<u>10.044</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area ~ ft <sup>2</sup>		
Max. Cross-Sectional	<u>355.28</u>	<u>0.583</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III. (CONTINUED)

MODEL COMPONENT:        - CANOPY C5GENERAL DESCRIPTION: - 87A BASELINE CANOPY USED ON FUSelage  
B10.SCALE MODEL = .10405DRAWING NUMBER: VL70-000092DIMENSIONS:FULL-SCALEMODEL SCALE       STA. FWD BULKHEAD391.0015.836       STA T.E.560.0022.680       CANOPY INTERSECTIONS  
BODY ML @ STA.391.0015.836

Fineness Ratio

Area

Max. Cross-Sectional

Planform

Wetted

Base

TABLE III. (CONTINUED).

MODEL COMPONENT: ~~88A~~ - MANIPULATOR ARM HOUSING D7

GENERAL DESCRIPTION: -89A MANIPULATOR ARM HOUSING, RUNNING FROM CANOPY TO VERTICAL TAIL.

SCALE MODEL = .0405

DRAWING NUMBER: VL70-0000-13

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ 1/2, (X <sub>0</sub> 426.0 → X <sub>0</sub> 1307.0)	<u>881.00</u>	<u>35.681</u>
Max. Width ~ 1/2,	<u>51.00</u>	<u>2.066</u>
Max. Depth ~ 1/2,	<u>20.00</u>	<u>0.810</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area		
Max. Cross-Sectional	<u>          </u>	<u>          </u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III. (CONTINUED)

MODEL COMPONENT: ■ - ORBITAL MANEUVERING SYSTEM M2GENERAL DESCRIPTION: ORBITAL MANEUVERING SYSTEM MOUNTED  
IN HIGH SHOULDER POSITIONSCALE MODEL = 1.0405DRAWING NUMBER: VL70-005012DIMENSIONS:FULL-SCALEMODEL SCALE

Length ~ IN.

367.0014.864

Max. Width ~ IN.

116.004.698

Max. Depth ~ IN.

120.204.868

Fineness Ratio

Area

Max. Cross-Sectional

Planform

Wetted

Base

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY FLAP F<sub>1</sub>GENERAL DESCRIPTION: BODY FLAP LOCATED ON LOWER AFT  
PORTION OF FUSLLAGE, PURPOSE IS TO PROTECT MAIN ROCKET  
ENGINES.SCALE MODEL = .0405DRAWING NUMBER: VL70-000005ADIMENSIONS:FULL-SCALEMODEL SCALE

Length ~ IN.

236.549.530~~Max. Length~~ FLAP L.E. FUS. STA. ~ IN.1528.3061.830~~Max. Span~~ FLAP T.E. FUS. STA. ~ IN.1650.5666.448~~Span~~ SPAN ~ IN.236.549.530Area - ft<sup>2</sup>

Max. Cross-Sectional

Planform

199.757.328

Wetted

Base

TABLE III. (CONTINUED)

MODEL COMPONENT: ■ - AIR BREATHING ENGINE SYSTEM JI

GENERAL DESCRIPTION: + UNDER-WING NACELLE BASELINE  
CONFIGURATION INWARD ENGINE NACELLE STATION 1.0  
AT F.S. 1000.00, B.P.  $\pm 55.00$ , W.P. 257.31. OUTWARD  
ENGINE NACELLE STATION 0.0 AT F.S. 1000.00, B.P.  $\pm 206.00$ , W.P. 277.5  
NACELLE INCIDENCE ANGLE =  $+4.0^\circ$

DRAWING NUMBER: VLTD-22237  
SS-ADD103

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN.	<u>244.00</u>	<u>1.552</u>
Max. Width ~ IN.	<u>52.00</u>	<u>2.106</u>
Max. Depth ~ IN.	<u>52.00</u>	<u>2.106</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area ~ $ft^2$		
Max. Cross-Sectional	<u>14.75</u>	<u>0.0242</u>
■ CAPTURE	<u>5.72</u>	<u>0.0143</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>
PYLON LENGTH ~ IN.	<u>135.80</u>	<u>5.500</u>
PYLON WIDTH ~ IN.	<u>18.52</u>	<u>0.750</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: ~~72~~ - AIR BREATHING ENGINE SYSTEM J2

GENERAL DESCRIPTION: SAME AS J1 EXCEPT SHORT Pylon ADDED.

INBOARD ENGINE NACELLE STATION AT F.S. 220.20, B.P.  $\pm 55.00$ ,  
 W.P. 258.81. OUTBOARD ENGINE NACELLE STATION O.C. AT  
 F.S. 1020.20, B.P.  $\pm 206.00$ , W.P. NACELLE Pylon HAS BEEN  
 MODIFIED TO REMOVE BLUNT T.E.

DRAWING NUMBER: VL75-200-3/  
SS-A00103

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN.	<u>244.00</u>	<u>4.102</u>
Max. Width ~ IN.	<u>52.00</u>	<u>2.106</u>
Max. Depth ~ IN.	<u>52.00</u>	<u>2.106</u>
Fineness Ratio	_____	_____
Area ~ ft <sup>2</sup>		
Max. Cross-Sectional	<u>14.75</u>	<u>0.0242</u>
<del>Maximum</del> CAPTURE	<u>10.12</u>	<u>0.0166</u>
Wetted	_____	_____
Base	_____	_____
Pylon LENGTH ~ IN.	<u>160.41</u>	<u>6.500</u>
Pylon WIDTH ~ IN.	<u>18.52</u>	<u>0.150</u>




TABLE III. (CONTINUED)

MODEL COMPONENT:      - AIR BREATHING ENGINE SYSTEM J3GENERAL DESCRIPTION: SAME AS J1 EXCEPT PYLON HAS BEEN  
MODIFIED TO REMOVE BLUNT T.E.DRAWING NUMBER: VL7D-000037  
SS-A00103

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length ~ IN.	<u>244.00</u>	<u>9.852</u>
Max. Width ~ IN.	<u>52.00</u>	<u>2.100</u>
Max. Depth ~ IN.	<u>52.00</u>	<u>2.100</u>
Fineness Ratio	<u>          </u>	<u>          </u>
Area ~ ft <sup>2</sup>		
Max. Cross-Sectional	<u>14.75</u>	<u>0.0242</u>
<del>Platform</del> CAPTURE	<u>8.72</u>	<u>0.043</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>
PYLON LENGTH ~ IN.	<u>120.49</u>	<u>6.500</u>
PYLON WIDTH ~ IN.	<u>13.52</u>	<u>0.750</u>

TABLE III. (CONTINUED)

MODEL COMPONENT:  - AIR BREATHING ENGINE SYSTEM - J4

GENERAL DESCRIPTION: TWO INBOARD NACELLES SAME AS J3,  
TWO OUTBOARD NACELLES MOVED TO AFT FUSLAGE  
SIDEWALLS WITH N.S. O.O AT F.S. 1120.00, B.P.  $\pm 163.05$   
W.P. 430. NACELLE DIMENSIONS SAME AS J3

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	_____
Max. Width	_____	_____
Max. Depth	_____	_____
Fineness Ratio	_____	_____
Area		
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III. (CONTINUED)

MODEL COMPONENT: ■ - AIR BREATHING ENGINE SYSTEM JS

GENERAL DESCRIPTION: 6 UNDER-WING NACELLE CONFIGURATION,  
SAME AS JS WITH 2 ADDITIONAL NACELLES POSITIONED  
OUTBOARD. N.S. D.O AT F.S. 1077.00, B.P.  $\pm$  310.12,  
W.P. 131.85. NACELLE DIMENSIONS SAME AS JS

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	_____
Max. Width	_____	_____
Max. Depth	_____	_____
Fineness Ratio	_____	_____
Area		
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III. (CONTINUED)

MODEL COMPONENT:      - AIR BREATHING ENGINE SYSTEM J6

GENERAL DESCRIPTION: SAME AS J3 WITH 2 ADDITIONAL  
NACELLES POSITIONED ON AFT FUSelage SIDEWALLS WITH  
N.S. D.O AT 1120.00, B.P.  $\pm$  163.65, W.P. 430.  
NACELLE DIMENSIONS SAME AS J3

DRAWING NUMBER: \_\_\_\_\_

DIMENSIONS:FULL-SCALEMODEL SCALE

Length

\_\_\_\_\_

\_\_\_\_\_

Max. Width

\_\_\_\_\_

\_\_\_\_\_

Max. Depth

\_\_\_\_\_

\_\_\_\_\_

Fineness Ratio

\_\_\_\_\_

\_\_\_\_\_

Area

Max. Cross-Sectional

\_\_\_\_\_

\_\_\_\_\_

Planform

\_\_\_\_\_

\_\_\_\_\_

Wetted

\_\_\_\_\_

\_\_\_\_\_

Base

\_\_\_\_\_

\_\_\_\_\_

TABLE III. (CONTINUED)

MODEL COMPONENT: ■ - AIR BREATHING ENGINE SYSTEM J7GENERAL DESCRIPTION: 6 UNDER-WING NACELLE CONFIGURATION  
WITH 3 NACELLES PER FYLON. CENTER NACELLE WITH  
N.S. D.O AT F.S. 1077.00, B.P.  $\pm$  310.12, W.P. 131.85  
NACELLE DIMENSIONS SAME AS J3

DRAWING NUMBER: \_\_\_\_\_

DIMENSIONS:FULL-SCALEMODEL SCALE

Length

\_\_\_\_\_

\_\_\_\_\_

Max. Width

\_\_\_\_\_

\_\_\_\_\_

Max. Depth

\_\_\_\_\_

\_\_\_\_\_

Fineness Ratio

\_\_\_\_\_

\_\_\_\_\_

Area

Max. Cross-Sectional

\_\_\_\_\_

\_\_\_\_\_

Planform

\_\_\_\_\_

\_\_\_\_\_

Wetted

\_\_\_\_\_

\_\_\_\_\_

Base

\_\_\_\_\_

\_\_\_\_\_

TABLE III. (CONTINUED)

MODEL COMPONENT: LANDING GEAR, G-1

GENERAL DESCRIPTION: Configuration consist of two (2) nose gear doors and one (1) main gear door. Gear fully extended. Ref. sketch 1 and 2.

Scale Model = 0.0405 Doors in full open position.

TEST  
DRAWING NUMBER: SSA-00007

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	_____
Max. Width	_____	_____
Max. Depth	_____	_____
Fineness Ratio	_____	_____
Area		
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____
Ref. Point: Top right hand corner		
{	Door (A)	WL = -4.595 in MS: -113.457 in.FS MS = 13.786: 339.950 in. FS
	Door (B)	WL = -4.56 in. MS: -112.592 in. FS MS = 11.836 in. MS: 292.247 in. FS
{	in Door	WL = -5.546 in. MS:-136.938 in. FS MS = 48.177 in. MS: 1189.550 in. FS
Frontal Area $\Delta eB = .16 \times .72 = .1152 \text{ in}^2 \text{ MS}$ 70.2431 $\text{in}^2 \text{ MS}$		
Frontal Area of Main = $.16 \times 2.31 = 0.3696 \text{ in. MS}$ 225.36585 $\text{in}^2 \text{ MS}$		

TABLE III. (CONTINUED)

MODEL COMPONENT:      - LANDING GEAR G12GENERAL DESCRIPTION: SAME AS LANDING GEAR G1 EXCEPT  
MAIN GEAR DELTA MOVED INBOARD 6-7.14 IN.DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	_____
Max. Width	_____	_____
Max. Depth	_____	_____
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE 111. (CONTINUED)

MODEL COMPONENT: Wing W-37GENERAL DESCRIPTION: - 37H BASELINE WING. DOUBLE DELTA WING  
(A.L.C. = 75/45) WITH BLENDED WING BODY JUNCTION.SCALE MODEL = .0465DRAWING NUMBER: V270-1000015

## DIMENSIONS:

FULL-SCALE

MODEL SCALE

## TOTAL DATA

Area - $ft^2$ (W.B.P.)		
Planform	2687.38	4.411
Wetted		
Span (equivalent) - ft.	77.17	3.125
Aspect Ratio	2.214	2.214
Rate of Taper	1.176	1.176
Taper Ratio	0.207	0.207
Dihedral Angle, degrees	3.861	3.861
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees	-	-
Toe-In Angle	-	-
Cant Angle	-	-
Sweep Back Angles, degrees		
Leading Edge	44.873	44.873
Trailing Edge	-10.242	-10.242
0.25 Element Line	35.050	35.050
Chords - in.		
Root (Wing Sta. 0.0)	610.17	27.953
Tip, (equivalent)	144.30	5.844
MAC	476.76	19.307
Fus. Sta. of .25 MAC	1136.12	46.013
W.P. of .25 MAC	237.44	11.722
B.L. of .25 MAC	151.03	7.330
Airfoil Section		
Root	-	-
Tip	-	-

## EXPOSED DATA

Area - $ft^2$	1746.51	2.565
Span, (equivalent) - ft	57.16	2.376
Aspect Ratio	2.004	2.004
Taper Ratio	0.256	0.256
Chords - in.		
Root	562.77	22.712
Tip	144.30	5.844
MAC	374.81	15.990
Fus. Sta. of .25 MAC	1185.17	47.970
W.P. of .25 MAC	271.56	11.203
B.L. of .25 MAC	250.54	10.147
LEADING EDGE CURV.		
PLANFORM AREA - $ft^2$	121.42	0.199
L.C. INTERSECTS FUS. @ STA.	560.00	22.900
L.C. INTERSECTS WING @ STA.	1035.00	41.913



TABLE III. (CONTINUED)

MODEL COMPONENT: ELEVON E13GENERAL DESCRIPTION: DOUBLE PANEL, UNSUPP. HINGELINE ELEVON  
USED ON WING, 2001. DATA FOR 1 OF 2 SIDES.SCALE MODEL = .0415DRAWING NUMBER: V170-600-13

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - $ft^2$	<u>25.52</u>	<u>0.537</u>
Span (equivalent) - $in.$	<u>353.34</u>	<u>14.310</u>
Inb'd equivalent chord - $in.$	<u>114.73</u>	<u>4.671</u>
Outb'd equivalent chord - $in.$	<u>55.00</u>	<u>2.225</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.225</u>	<u>0.225</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Trailing Edge	<u>-0.020</u>	<u>-10.20</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line) - $ft^3$ (PRODUCT OF AREA AND MEAN CHORD)	<u>1546.07</u>	<u>2.551</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: VERTICAL TAIL V5GENERAL DESCRIPTION: -89A CENTERLINE VERTICAL TAIL WITH  
RUDDER AND/OR SPEED BRAKE DEFLECTION CAPABILITY.SCALE MODEL = .0405DRAWING NUMBER: VL70-00075DIMENSIONS: FULL-SCALE MODEL SCALETOTAL DATA

Area - ft <sup>2</sup> PLANFORM	386.05	0.633
<del>VOID</del> VOID* (INCLUDED ABOVE)	13.17	0.022
<del>VOID</del> BLANKETED ( " )	12.67	0.021
Span (equivalent) - ft	24.37	0.989
Aspect Ratio	1.590	1.590
Rate of Taper	0.507	0.507
Taper Ratio	0.426	0.426
Dihedral Angle, degrees	-	-
Incidence Angle, degrees	-	-
Aerodynamic Twist, degrees	-	-
Toe-In Angle	0.0	0.0
Cant Angle	0.0	0.0
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	26.249	26.249
0.25 Element Line	41.130	41.130
Chords: -/0.		
Root (Wing Sta. 0.0)	257.99	10.449
Tip, (equivalent)	109.78	4.446
MAC	193.84	7.851
Fus. Sta. of .25 MAC	1473.64	59.682
W.P. of .25 MAC	647.31	26.216
B.L. of .25 MAC	0.0	0.0
Airfoil Section		
Root		
Tip		

EXPOSED DATA

Area		
Span, (equivalent)		
Aspect Ratio		
Taper Ratio		
Chords		
Root		
Tip		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

\* VOID AREA IS LOCATED AT THE LOWER  
AFT PORTION OF THE TAIL SURFACE

TABLE III. (CONTINUED)

MODEL COMPONENT: RUDDER R5GENERAL DESCRIPTION: - B9A RUDDER USED ON VERTICAL TAIL V5SCALE MODEL = .0405DRAWING NUMBER: V270-000075

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - $\text{ft}^2$	<u>78.67</u>	<u>3.996</u>
Span (equivalent) - $\text{IN.}$	<u>201.00</u>	<u>8.141</u>
Inb'd equivalent chord - $\text{IN.}$	<u>91.59</u>	<u>3.707</u>
Outb'd equivalent chord - $\text{IN.}$	<u>50.83</u>	<u>2.051</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.833</u>	<u>34.833</u>
Tailing Edge	<u>26.247</u>	<u>26.249</u>
Hingeline	<u>34.833</u>	<u>34.833</u>
Area Moment (Normal to hinge line) $\sim \text{ft}^3$ (PRODUCT OF AREA AND MEAN CHORD)	<u>526.125</u>	<u>0.0356</u>

TABLE III. (CONTINUED)

MODEL COMPONENT: ■ - TRANSITION GRIT X7

GENERAL DESCRIPTION: .0077 IN. NOMINAL DIAMETER GRIT  
LOCATED 0.1 IN. WIDE, 1.0 IN. AFT STREAMWISE FROM L.L.  
ON ALL SWEPT SURFACES, + .0054 IN. NOMINAL DIAMETER  
GRIT LOCATED 0.1 IN. WIDE, 1.0 IN. AFT FROM NOSE,

DRAWING NUMBER: \_\_\_\_\_

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	_____
Max. Width	_____	_____
Max. Depth	_____	_____
Fineness Ratio	_____	_____
Area		
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III. (CONCLUDED)

MODEL COMPONENT:      - TRANSITION X10

GENERAL DESCRIPTION: SAME AS X9 WITH .0077 IN. NOMINAL  
DIAMETER GRIT LOCATED 0.1 IN. WISE, 1.0 IN. AFT 1/2  
ALL NACELLE COWL INNER AND OUTER SURFACES

DRAWING NUMBER:                     DIMENSIONS:FULL-SCALEMODEL SCALE

Length

Max. Width

Max. Depth

Fineness Ratio

Area

Max. Cross-Sectional

Planform

Wetted

Base

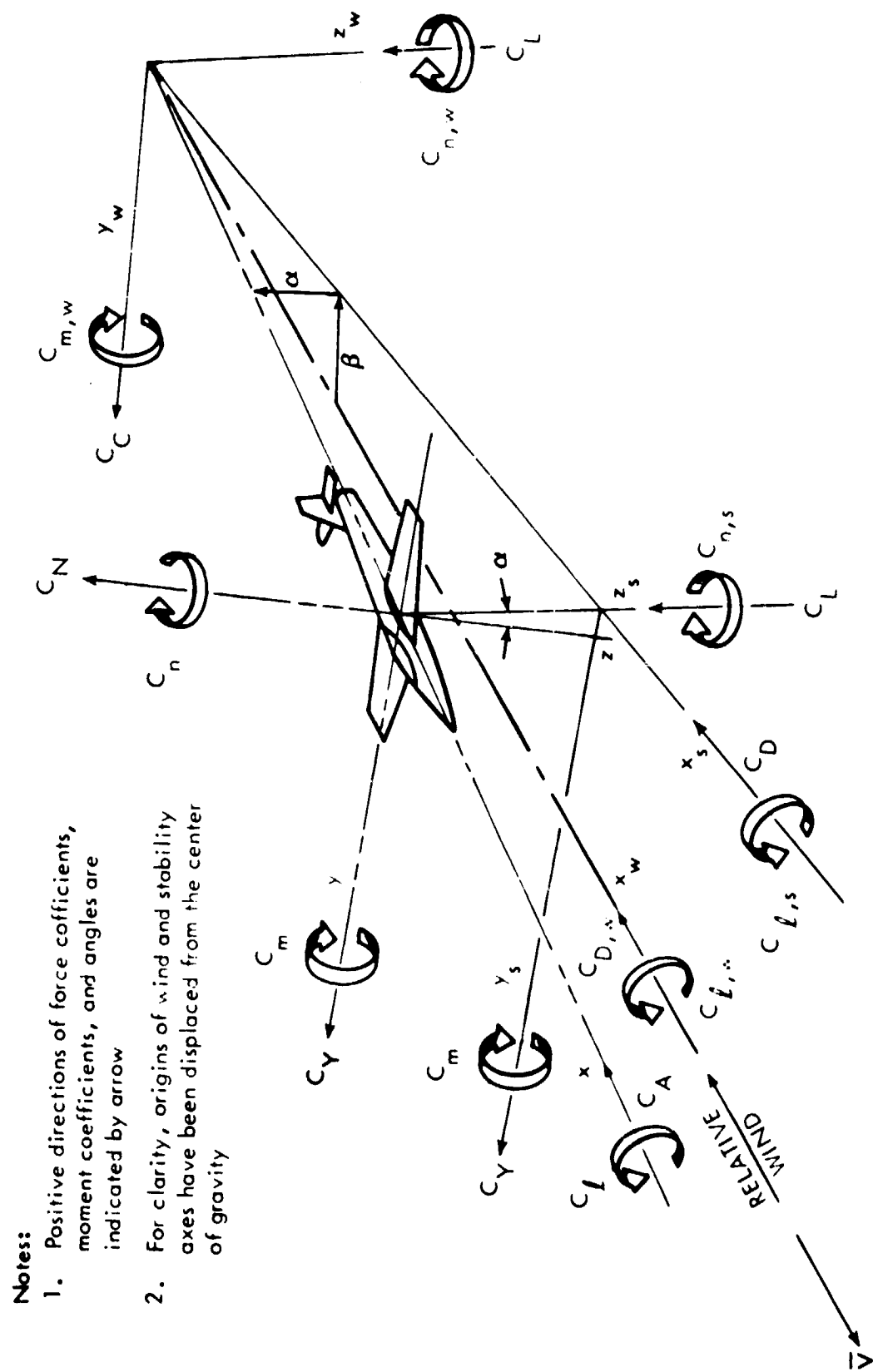


Figure 1 - Axis Systems.

A hand-drawn diagram of a biplane. The diagram includes the following labeled parts:

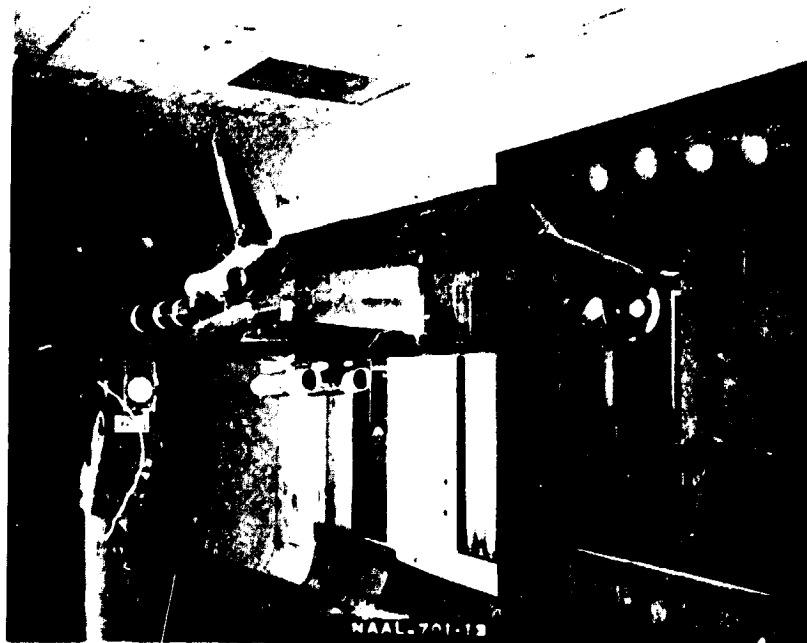
- 1**: Points to the upper wing.
- 2**: Points to the lower wing.
- 3**: Points to the fuselage.
- 4**: Points to the landing gear.
- 5**: Points to the tail.
- 6**: Points to the propeller.

A detailed technical drawing of a ship's hull cross-section, showing internal structures like the keel, ribs, and various mechanical components. Labels include "Vertical Tail Fx", "Rudder Fz", "Body Flap Fx", "Manipulator Arm Housing Dx", "Canopy Dz", "FEED-THRU", "STARC ADJUSTING (PER INSTRUCTIONS)", and dimensions like "150", "750", "150", "150", "150". There are also circular callouts with numbers 1 through 6.

Figure 2. - General Arrangement, .0405 Scale -89 Orbiter.



(a) Configuration  $B_{16}C_5D_7F_1J_3G_{12}W_{87}V_5X_{10}$



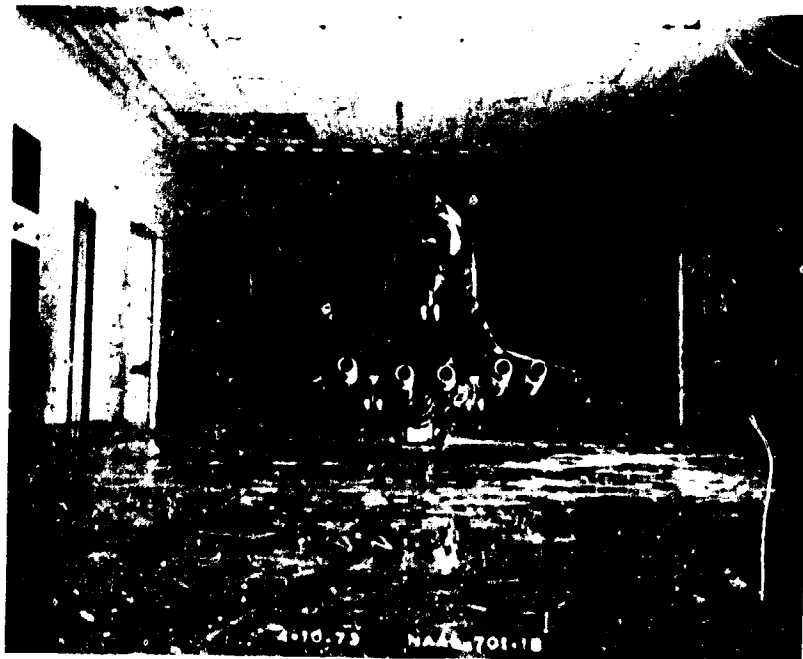
(b) Configuration  $B_{16}C_5D_7F_1J_4W_{87}V_5X_{10}$

Figure 3. .0405 Scale Model Installation in NAAL Low-Speed Wind Tunnel



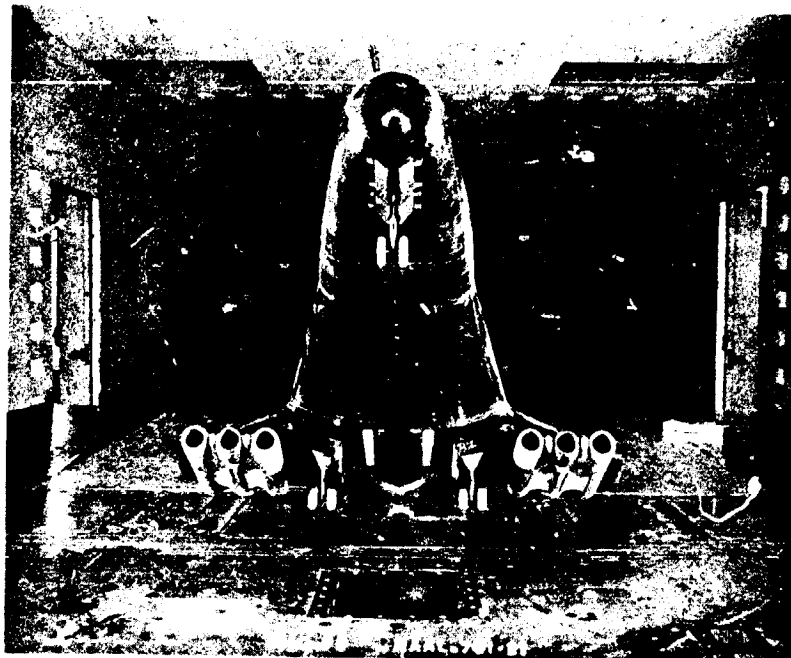


(c) Configuration  $B_{16}C_5D_7F_1J_6W_{87}V_5X_{10}$

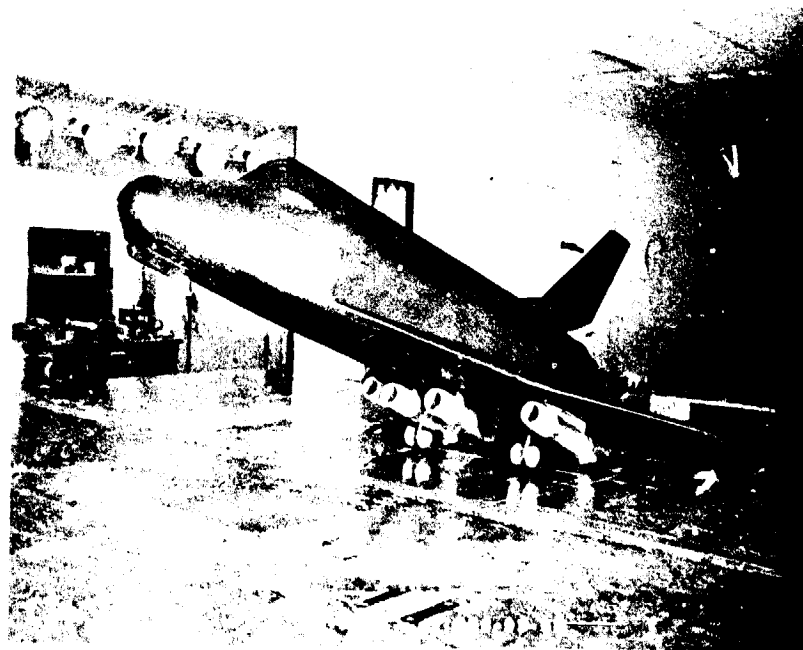


(d) Configuration  $B_{16}C_5D_7F_1J_5G_{12}W_{87}V_5X_{10}$

Figure 3. (Continued)

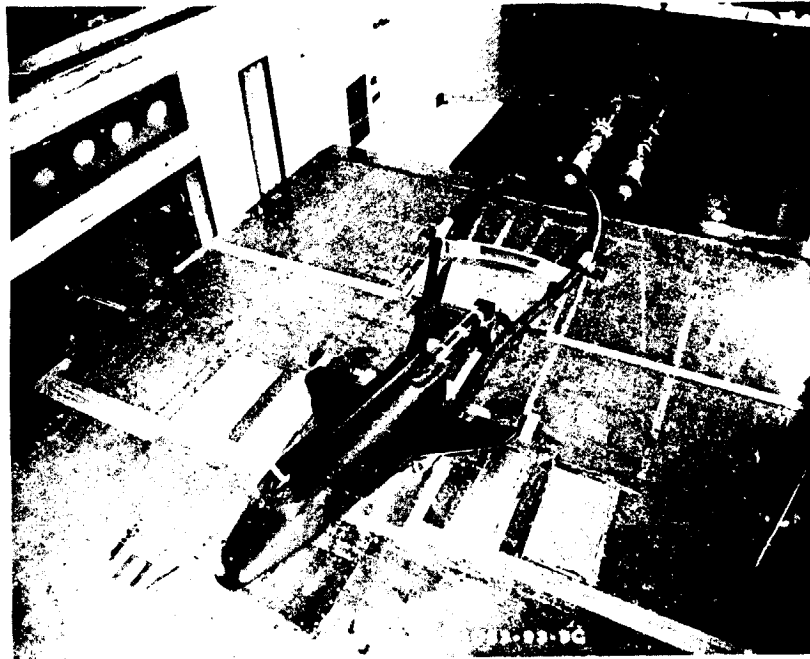


(e) Configuration  $B_{16}C_5D_7F_1J_7G_{12}W_{87}V_5X_{10}$

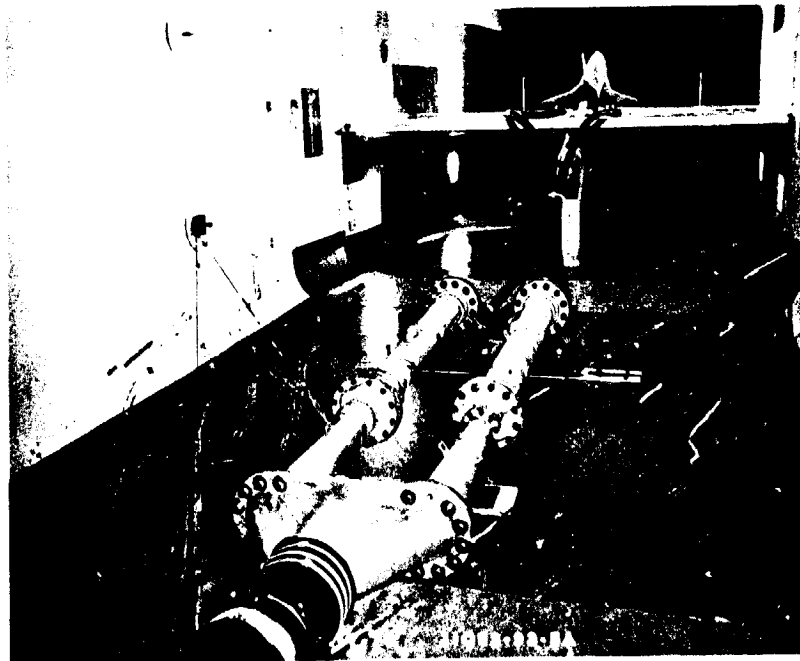


(f) Configuration  $B_{16}C_5D_7F_1J_3G_{12}W_{87}V_5$

Figure 3. (Continued)



(g) Configuration  $B_{16}C_5D_7J_3G_{12}W_{87}V_5$



(h) Configuration  $B_{16}C_5D_7J_3G_{12}W_{87}V_5$

Figure 3 . (Concluded)



Figure 4. - Body B10 Cross-Section.  
VL70-0C0092

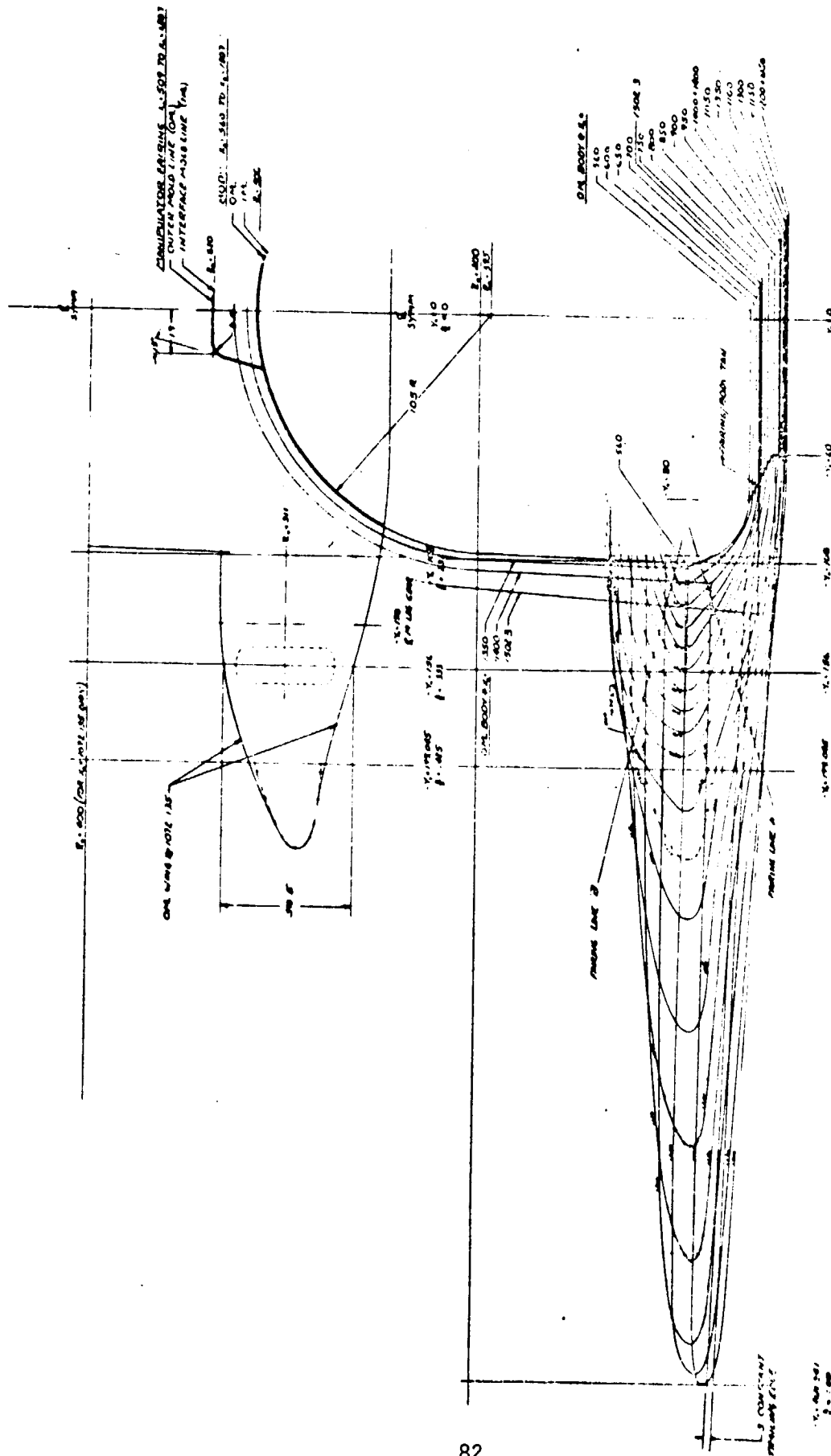


Figure 5. - Wing Cross-Section  
 W-87  
 VI:0-000093

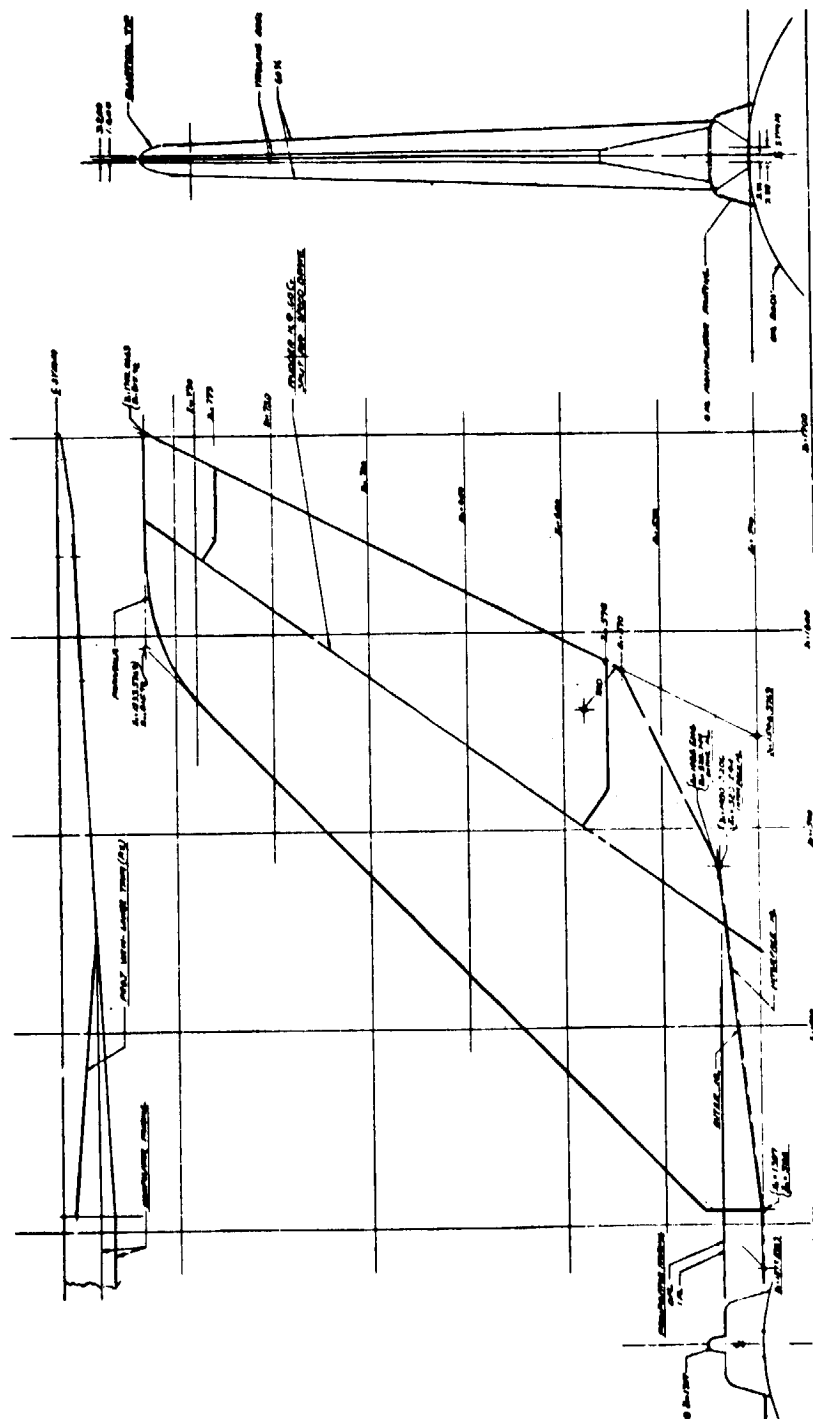


Figure 6. - Vertical-V5/Rudder-R5  
VL70-000095

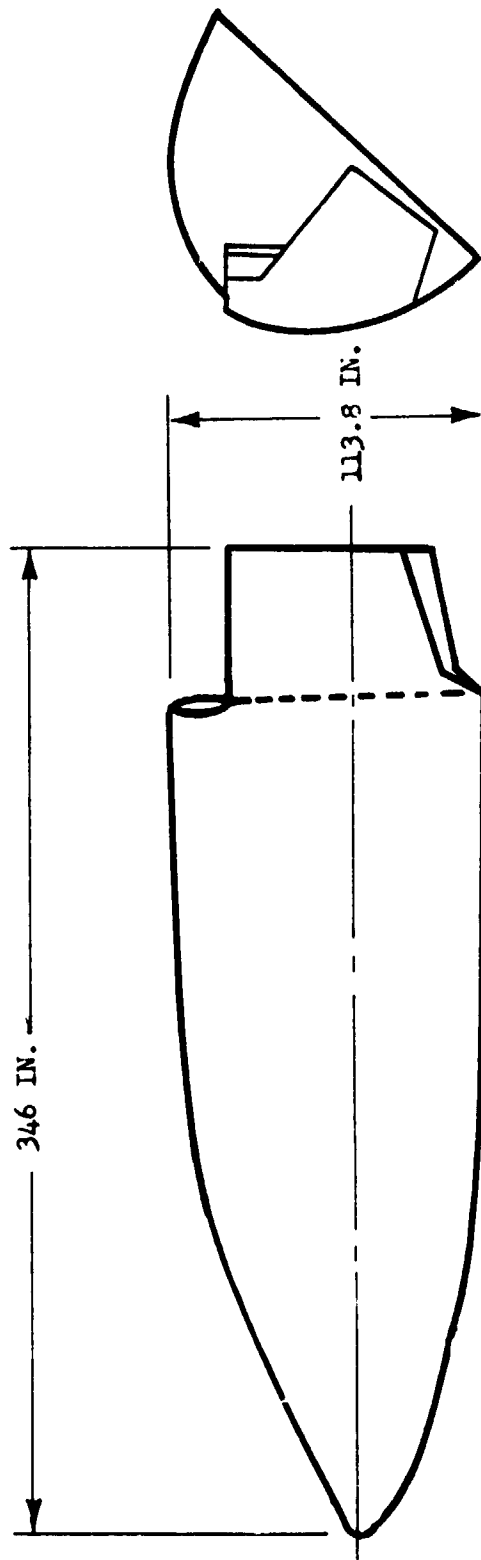


Figure 7. - OMS Pod.

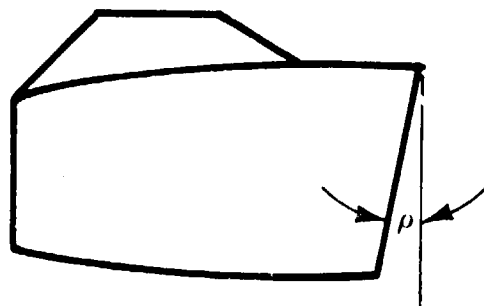
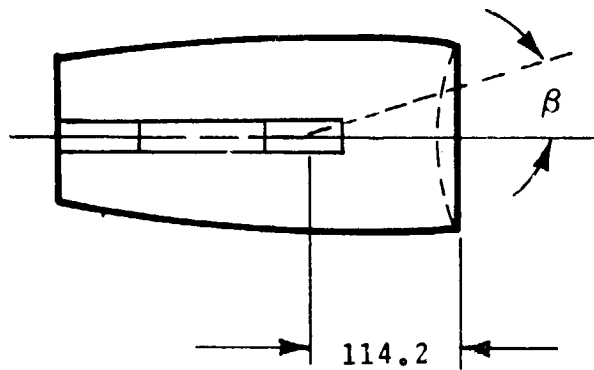
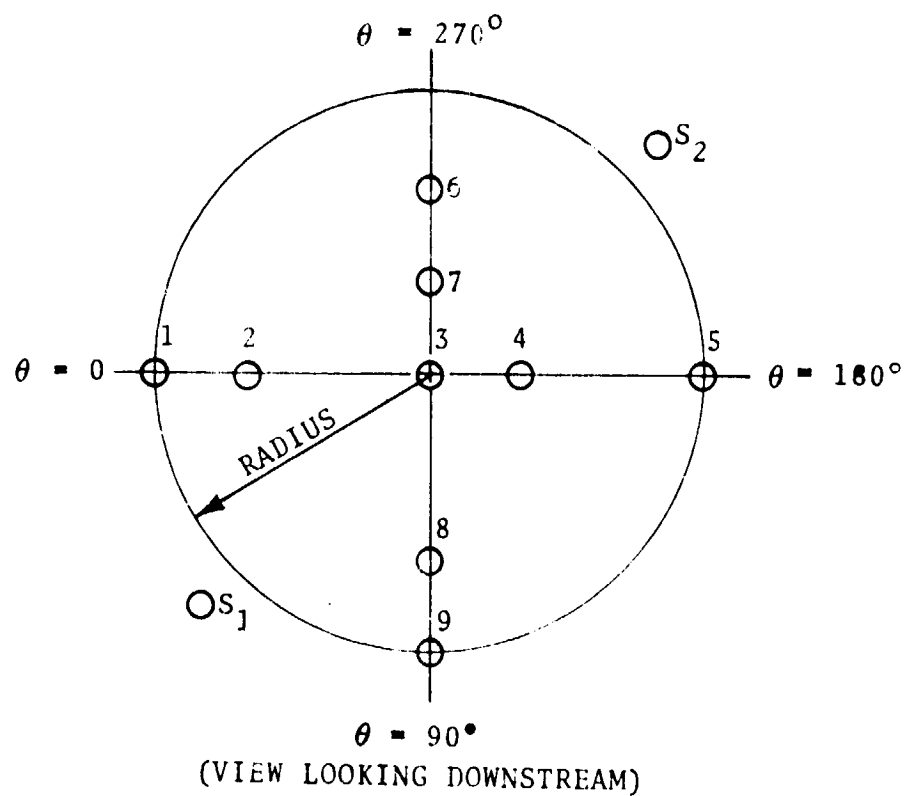


Figure 8. - Typical Engine Nacelle With Pylon.





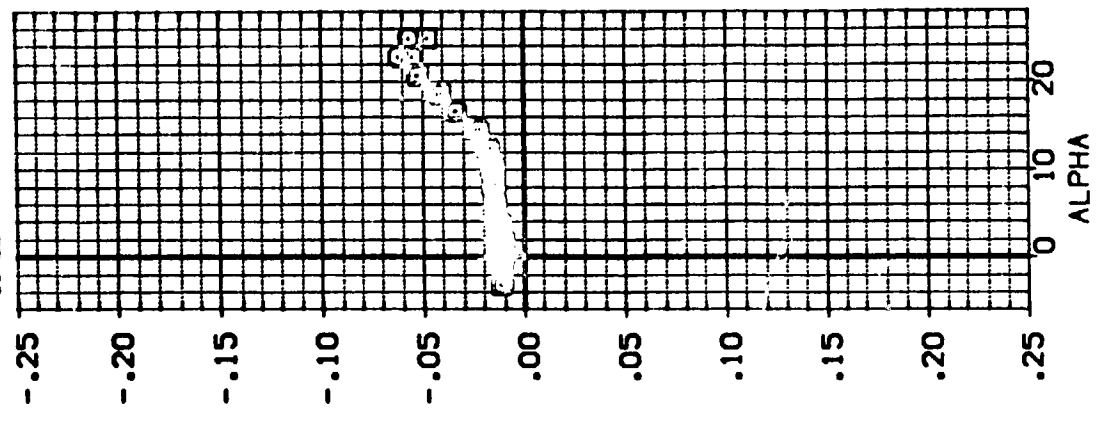
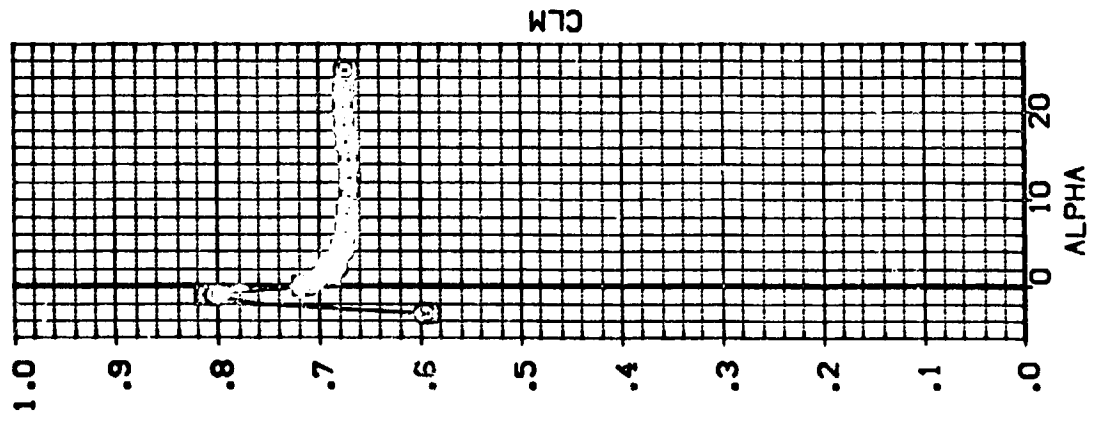
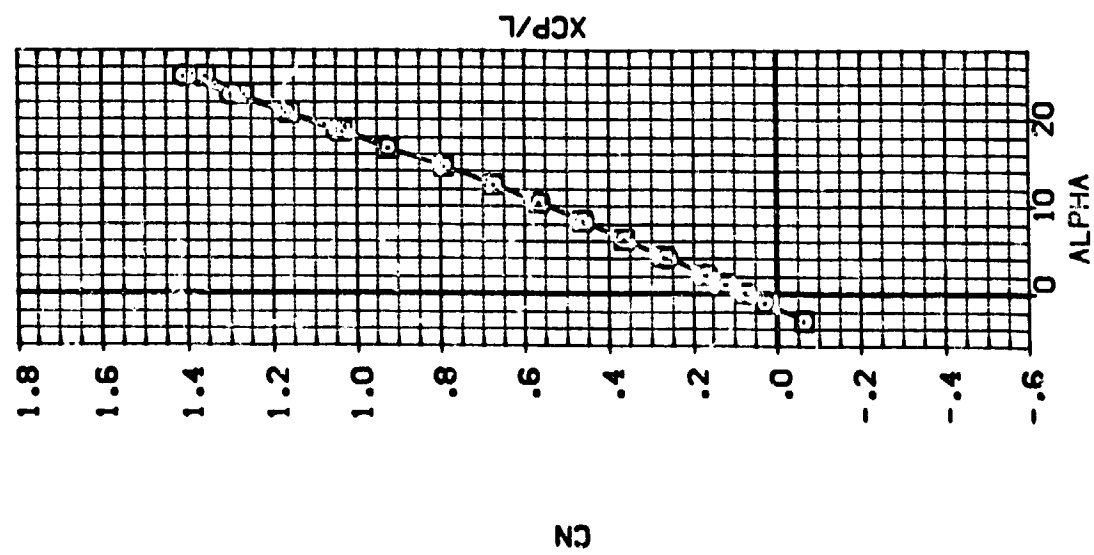
ORIFICE	$\theta$	RADIUS
1	0	.5625
2	0	.375
3	—	0
4	180	.1875
5	180	.5625
6	270	.375
7	270	.1875
8	90	.375
9	90	.5625
$S_1$	45	.750
$S_2$	225	.750

Figure 9. - Nacelle Pressure Rake Arrangement.

DATA FIGURES

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R00001) : ☐ N8.701.0405 098 810C507M02 1V87V5  
 (R00002) : ☐ N8.701.0405 098 810C507M02 1V87V5x9

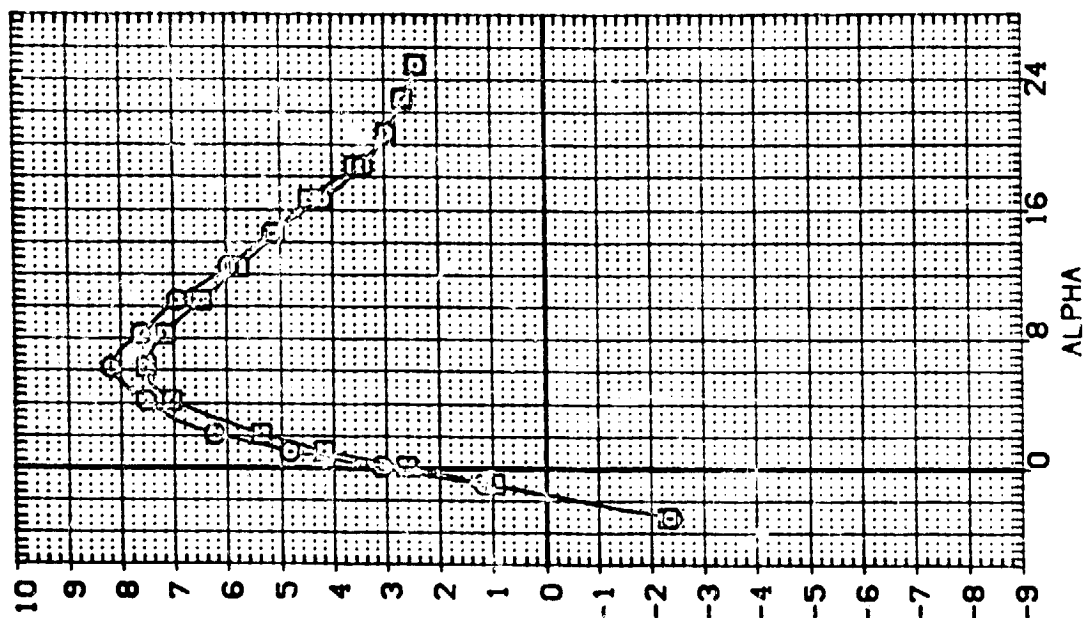
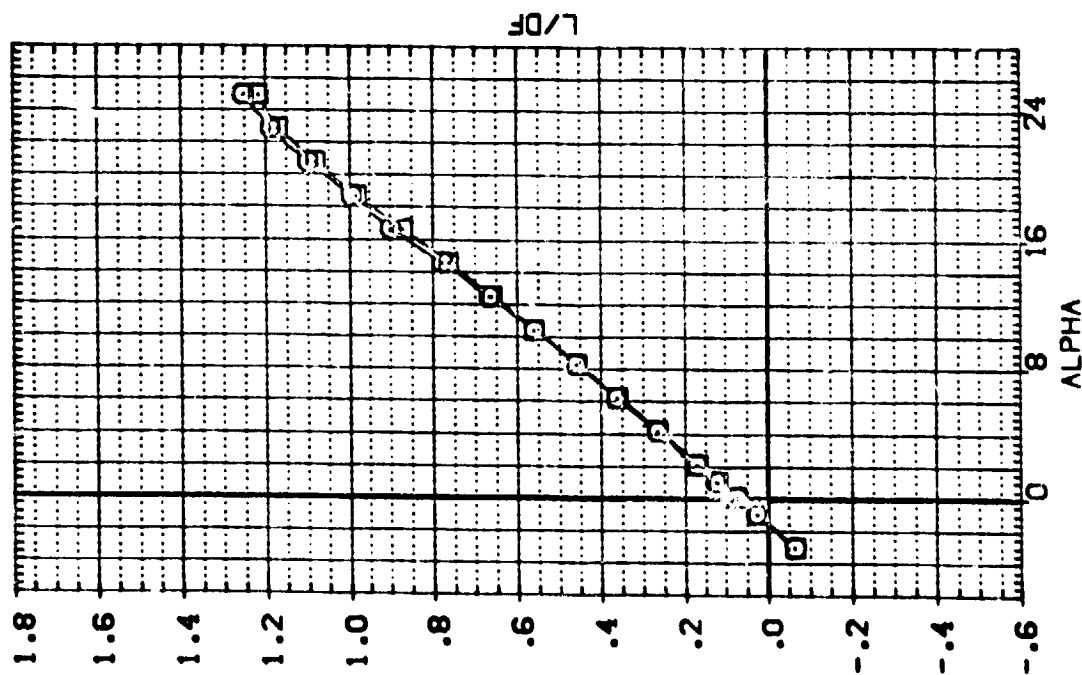
ELEVON AILRON PUDDER B.FLAP REFERENCE INFORMATION  
 SREF 4.4119 50.FT.  
 LREF 19.2339 INCHES  
 BREF 37.5319 INCHES  
 XREF 43.5974 INCHES  
 YREF .0000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405 SCALE



# EFFECT OF TRANSITION GRIT, BASELINE CONFIGURATION

(A)MACH = .20

MACUL	LIP	B. FLAP	RUDDER	REFERENCE INFORMATION	SQ. FT.
.000		.000	.000	SREF	4.4119
		.000	.000	LREF	19.2233
	4.000	.000	.000	XREF	37.5219
				YREF	43.5874
				ZREF	10.0000
				SCALE	16.2000
					.0005

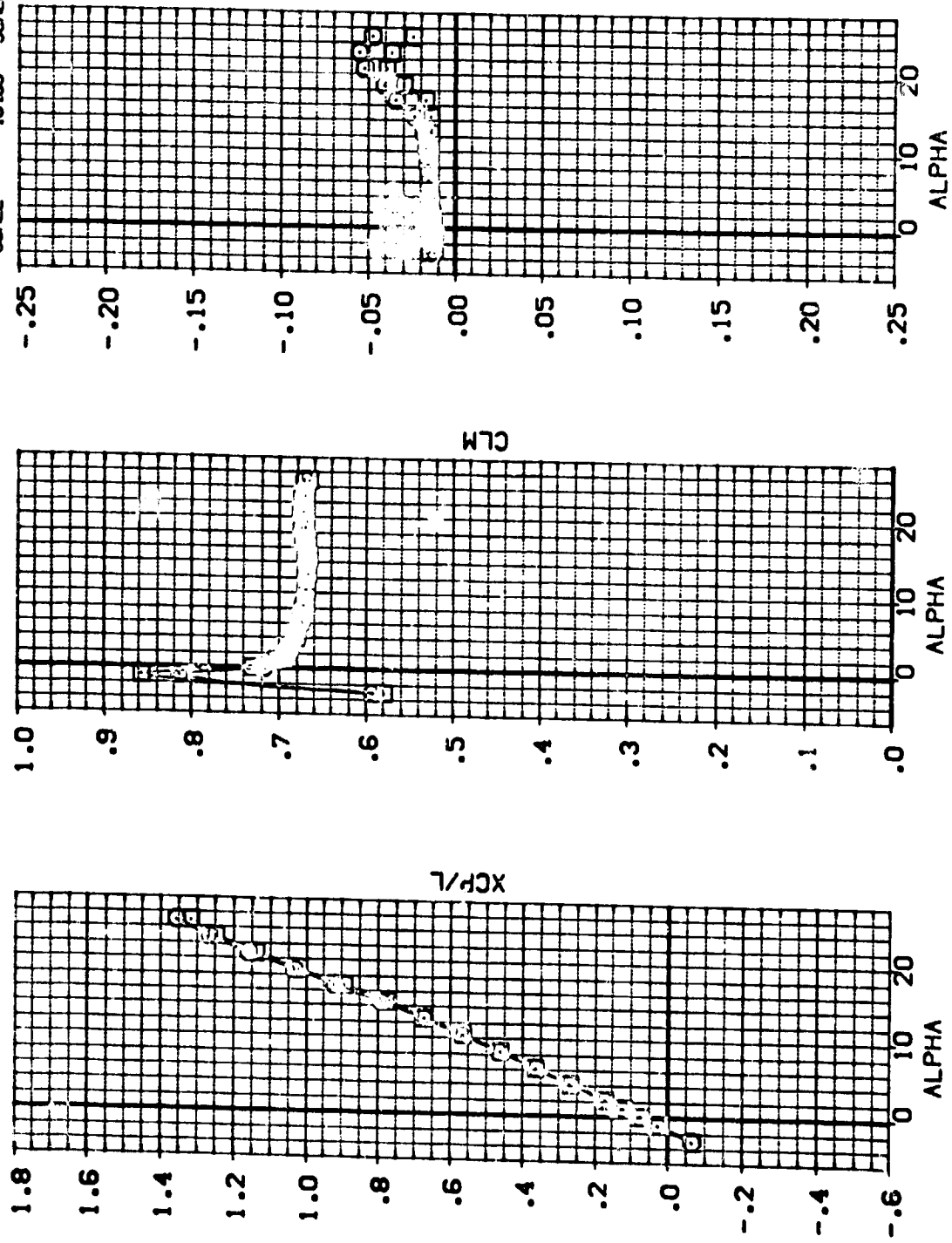


## EFFECT OF ABES, BASELINE CONFIGURATION

**[A]MACH = .20**

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ADN002) 8 88 810050708 1687009  
 (ADN003) 8 88 810050708 1687009

MACAL LIP .000 4.000  
 B.FLAP .000 .000  
 RUDDER .000 .000  
 REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2339 INCHES  
 BREF 37.9349 INCHES  
 NREF 43.5374 INCHES  
 YMRP 0.0000 INCHES  
 ZMRP 16.2000 INCHES  
 SCALE .0405 SCALE

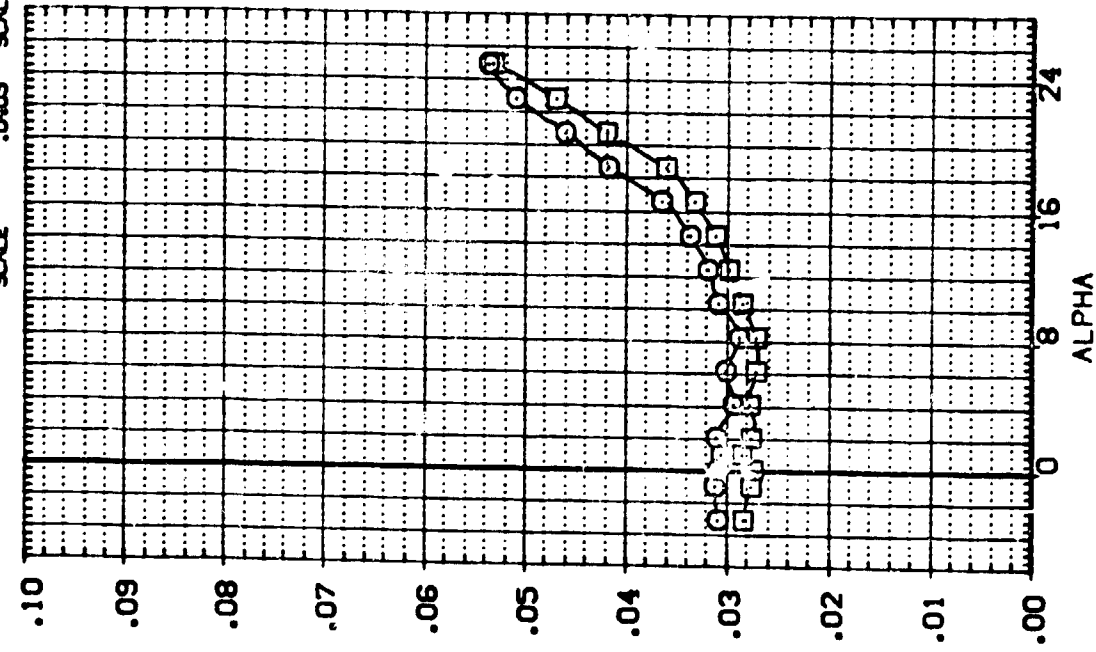
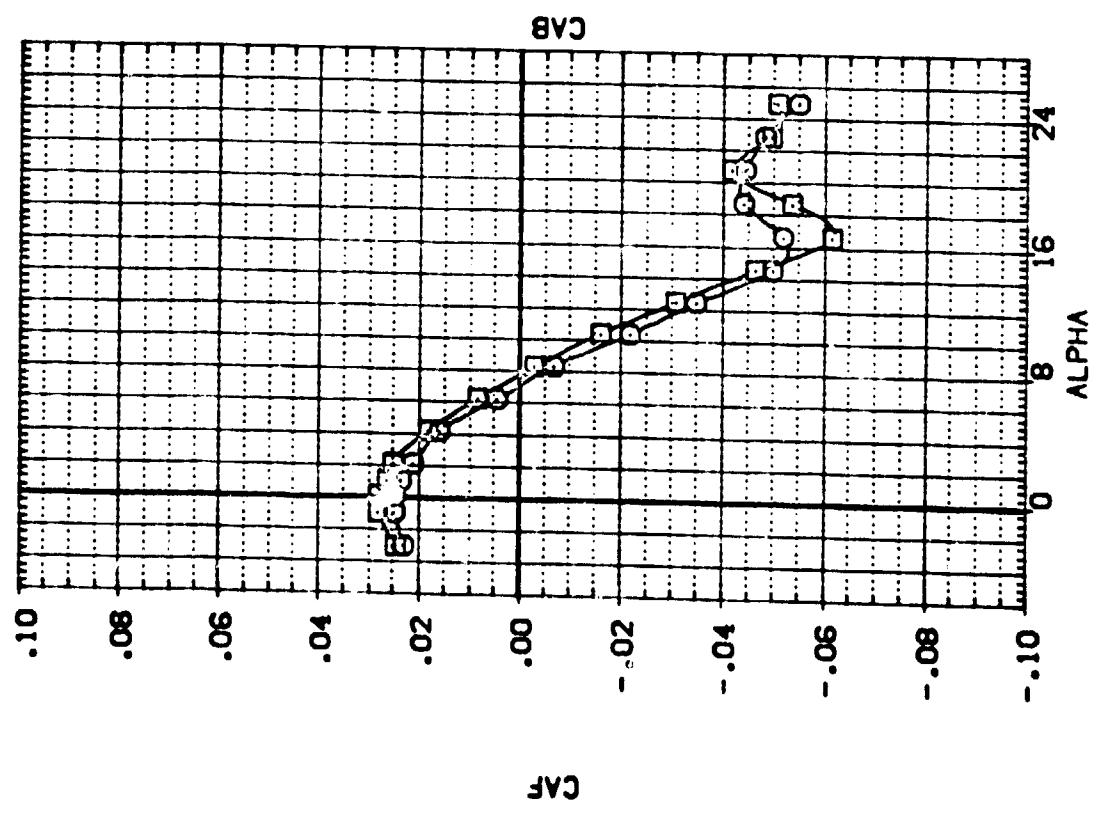


EFFECT OF ABES. BASELINE CONFIGURATION

(M)MACH = .20

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (AD-002)    □    MR.701.0405 038 81005070F11670503  
 (AD-003)    □    MR.701.0405 038 81005070F11670503

MACUL LIP    8.FLAP    RUDDER    REFERENCE INFORMATION  
 .000    4.000    .000    SREF    4.4119    50.FT.  
 .000    .000    .000    LREF    19.2859    INCHES  
 .000    .000    .000    BREF    37.5349    INCHES  
 .000    .000    .000    XREF    43.5374    INCHES  
 .000    .000    .000    YREF    17.0000    INCHES  
 .000    .000    .000    ZREF    16.2000    INCHES  
 .000    .000    .000    SCALE    .0405    SCALE

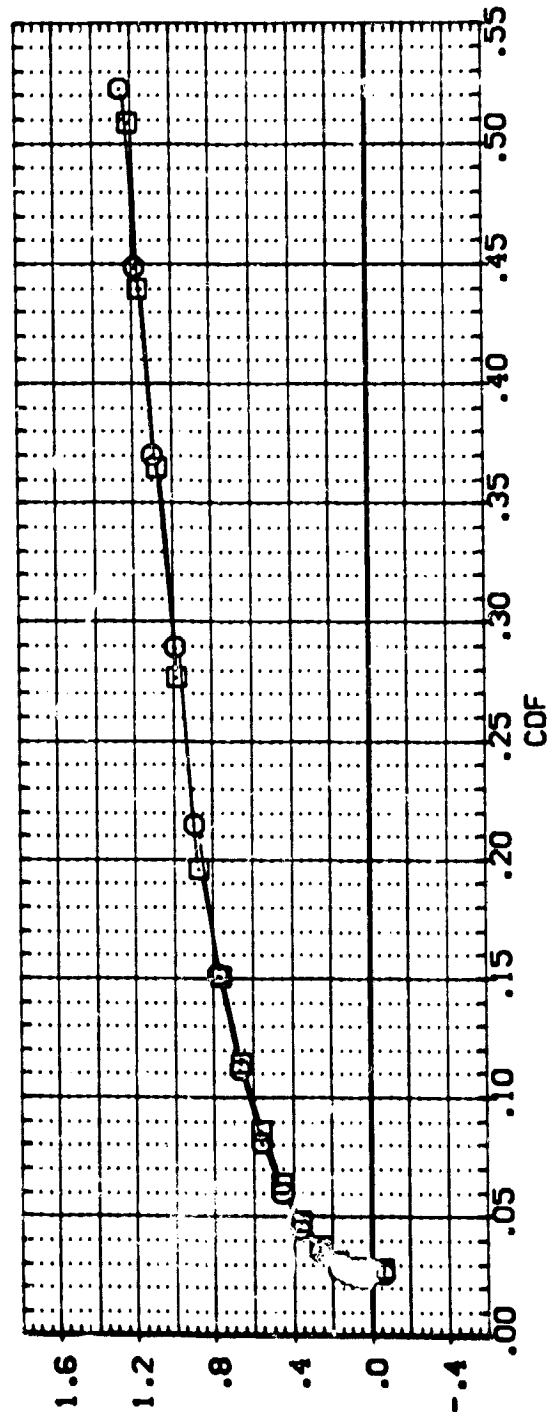
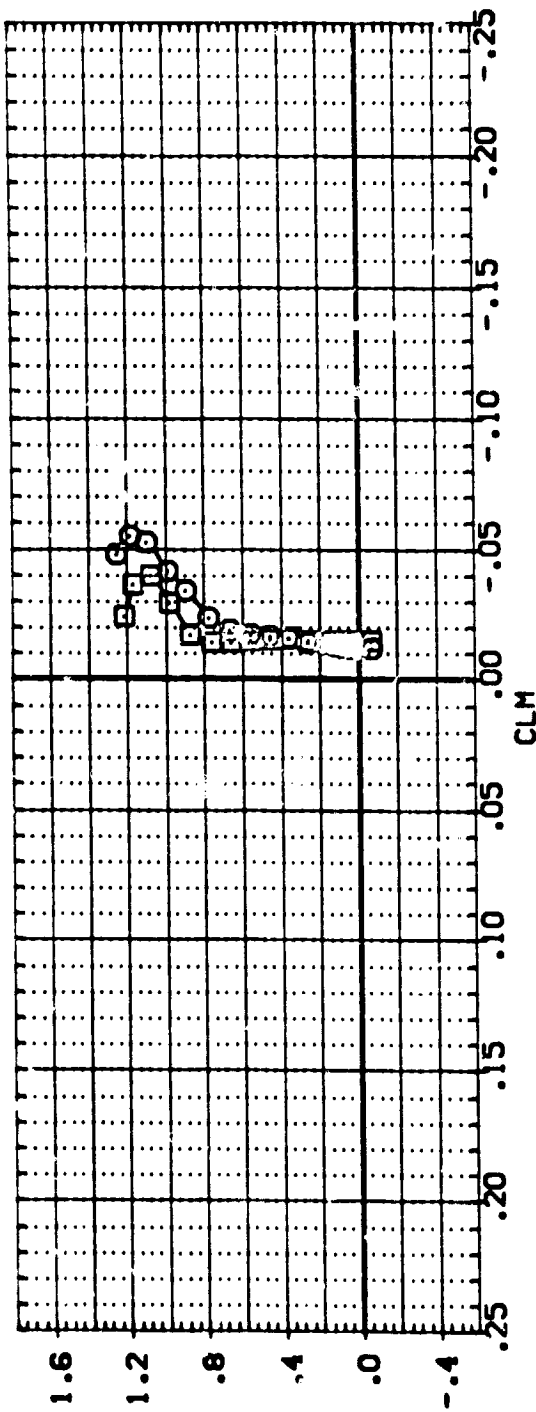


EFFECT OF ABES, BASELINE CONFIGURATION

(A)MACH = .20

DATA SET	SN	COL	CONF	DESCRIPTION
(ADN002)			NR 701 0405 038	810C3070F11V87V509
(ADN003)			NR 701 0405 038	810C3070F11V87V509

MAXVAL	LIP	B_FLAP	RUDER	REFERENCE INFORMATION	50-FT.
.000	.000	.000	.000	SREF	4.4119
.000	.000	.000	.000	LREF	19.2999
.000	.000	.000	.000	BREF	37.5349
.000	.000	.000	.000	RREF	43.5574
.000	.000	.000	.000	TRIP	.0000
.000	.000	.000	.000	ZREF	16.2000
.000	.000	.000	.000	SCALE	.0405



## EFFECT OF ABES, BASELINE CONFIGURATION

**(A)MACH = .20**

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ADN011) NR.701.0405 023 8160507F 143187V5X10

(ADN041) NR.701.0405 023 8160507F 143187V5X10

(ADN077) NR.701.0405 023 8160507F 143187V5X10

(ADN105) NR.701.0405 023 8160507F 143187V5X10

(ADN133) NR.701.0405 023 8160507F 143187V5X10

NACA/L LIP 8-FLAP RUDDER REFERENCE INFORMATION SQ.FT. INCHES

.000 4.000 -18.000 .000 SREF 4.4119 50.4119

.100 4.000 -18.000 .000 LREF 19.2023 19.2023

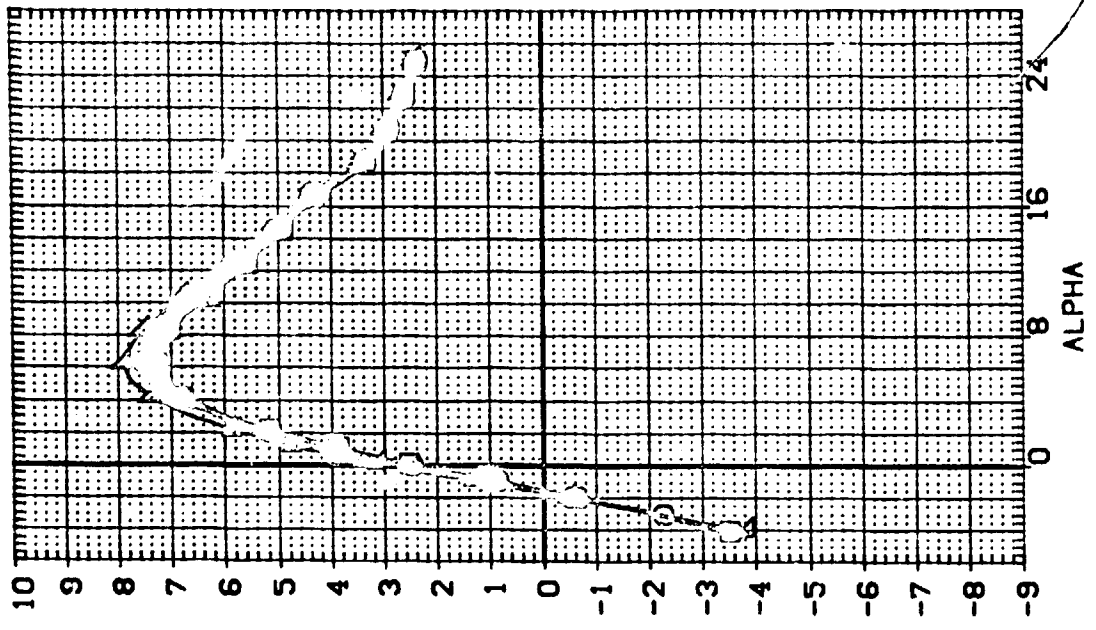
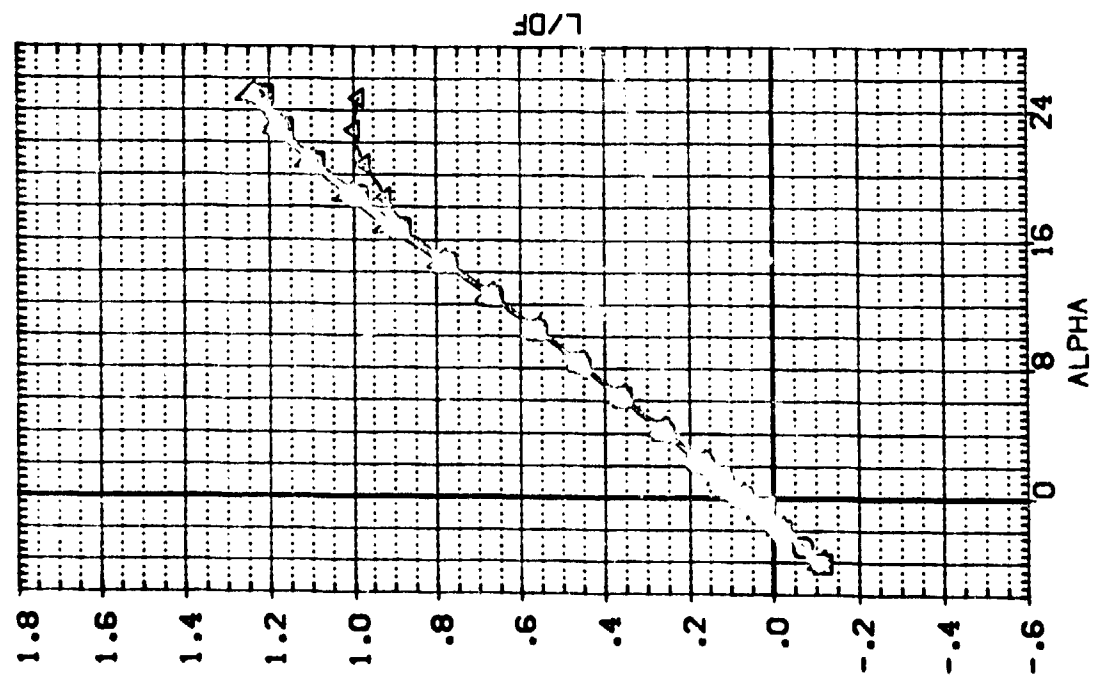
.250 4.000 -18.000 .000 GREF 37.5019 37.5019

.450 4.000 -18.000 .000 XREF 43.5374 43.5374

.000 .000 .000 YREF .0000 .0000

.000 .000 .000 ZREF 16.3000 16.3000

.000 .000 .000 SCALE .0405 .0405



EFFECT OF ABES LOCATION (4 NACELLES) GEAR OFF

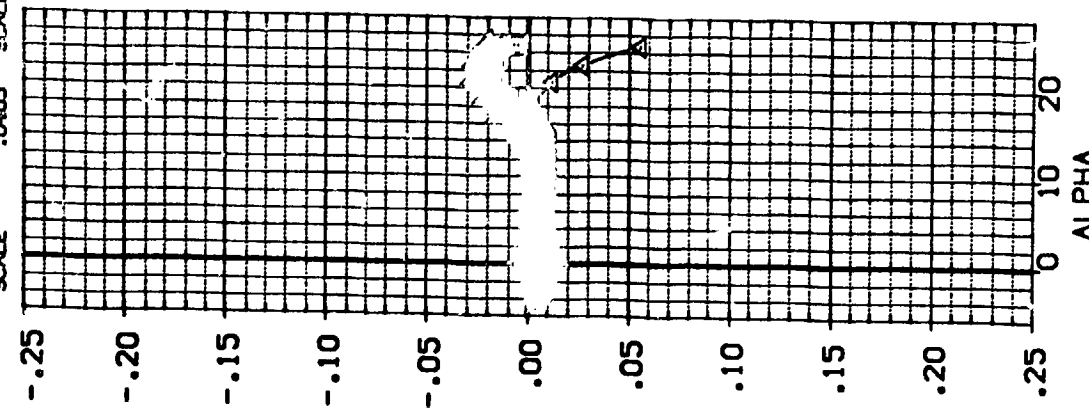
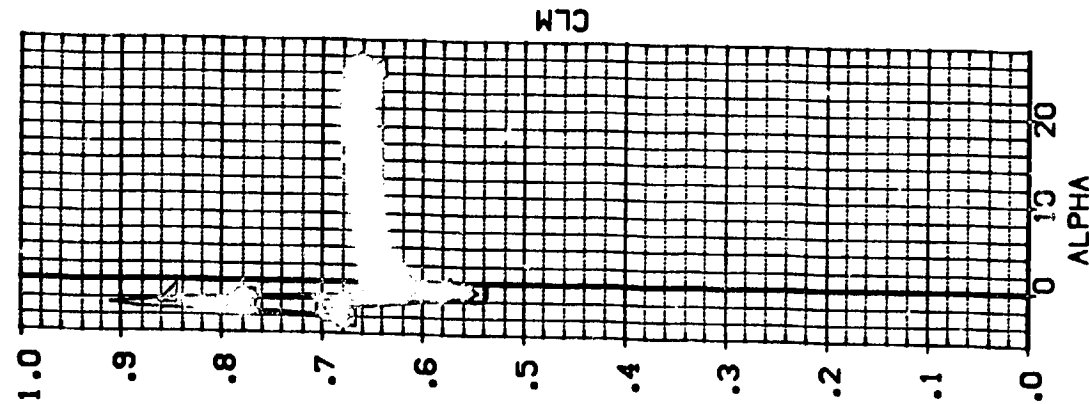
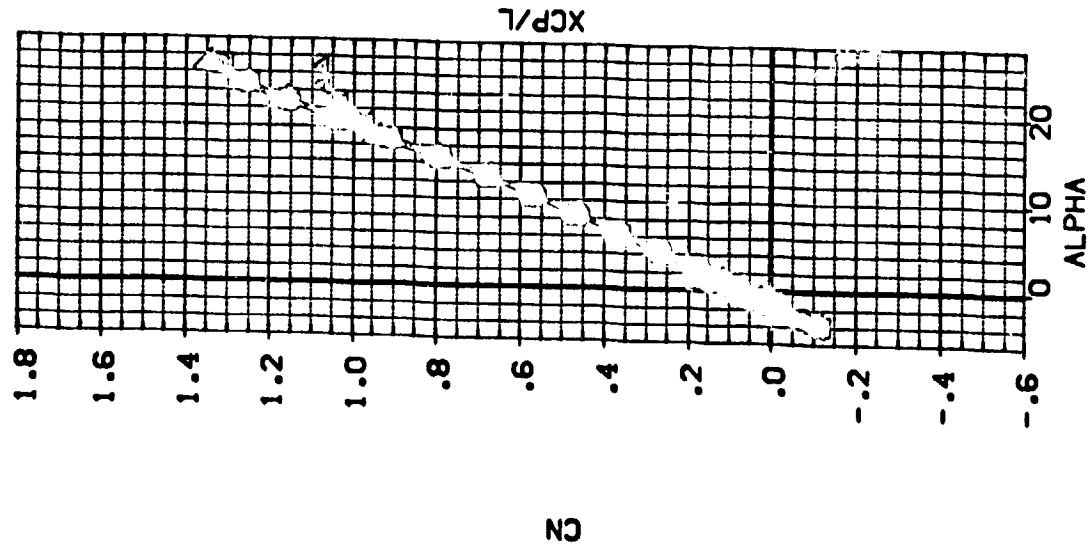
(M)MACH = .20



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ADN011) NR.701.0405 U33 B16C507F14367V5X10  
 (ADN041) NR.701.0405 U33 B16C507F14367V5X10  
 (ADN087) NR.701.0405 U33 B16C507F14367V5X10  
 (ADN165) NR.701.0405 U33 B16C507F14367V5X10  
 (ADN133) NR.701.0405 U33 B16C507F14367V5X10

NACA/L LIP B.FLAP POWER  
 .000 -18.000 .000  
 .100 -18.000 .000  
 .250 -18.000 .000  
 .450 -18.000 .000

REFERENCE INFORMATION  
 SREF 4.4119 50. FT.  
 LREF 19.2533 INCHES  
 BREF 37.5319 INCHES  
 XREF 43.5574 INCHES  
 YREF .0000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405

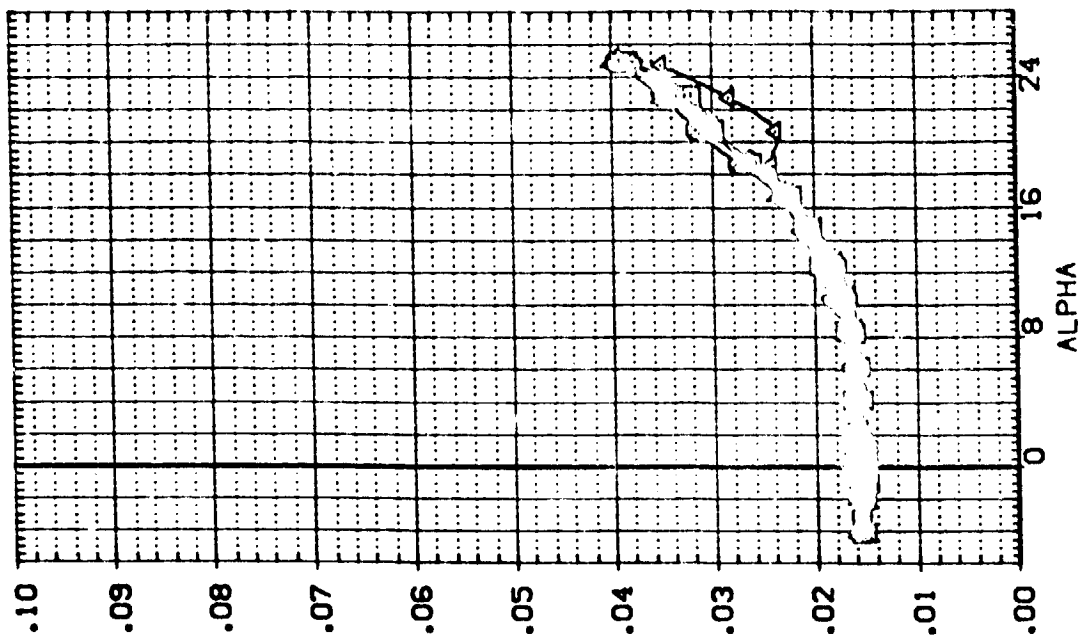
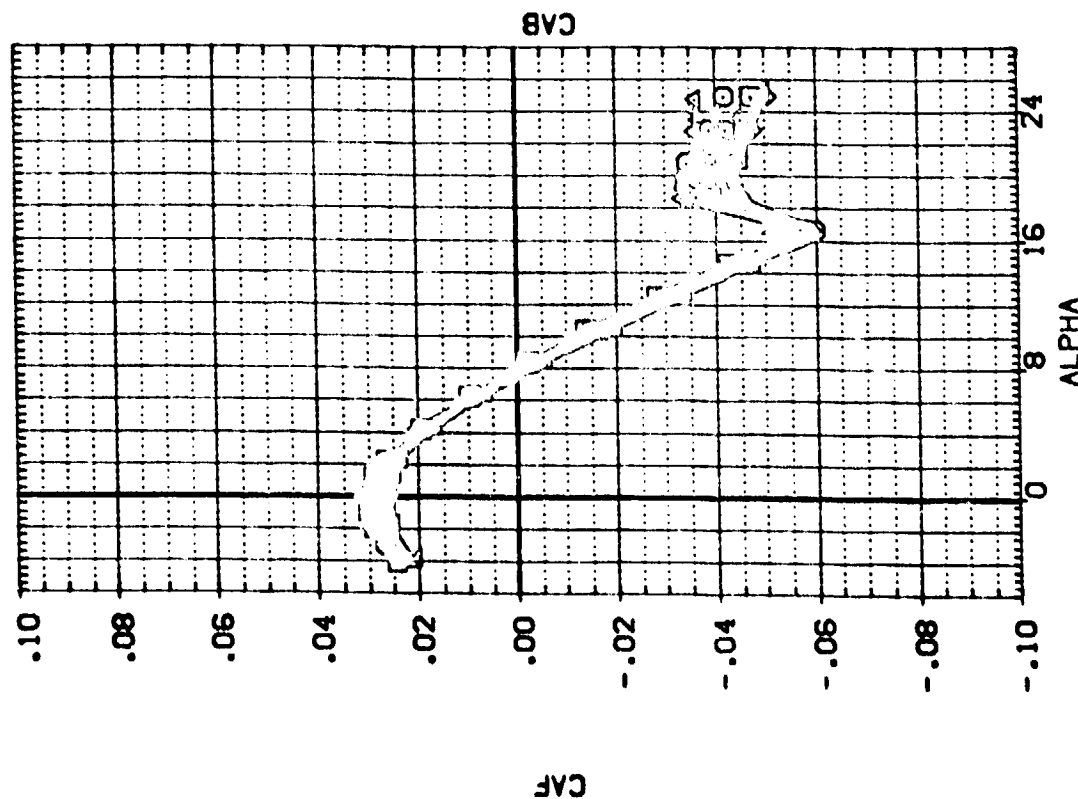


EFFECT OF ABES LOCATION (4 NACELLES) GEAR OFF

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (AD-0111) NR.701.0405 000 816507F 13387V SX10  
 (AD-0411) NR.701.0405 000 816507F 13387V SX10  
 (AD-0877) NR.701.0405 000 816507F 13387V SX10  
 (AD-1155) NR.701.0405 000 816507F 13387V SX10  
 (AD-1133) NR.701.0405 000 816507F 13387V SX10

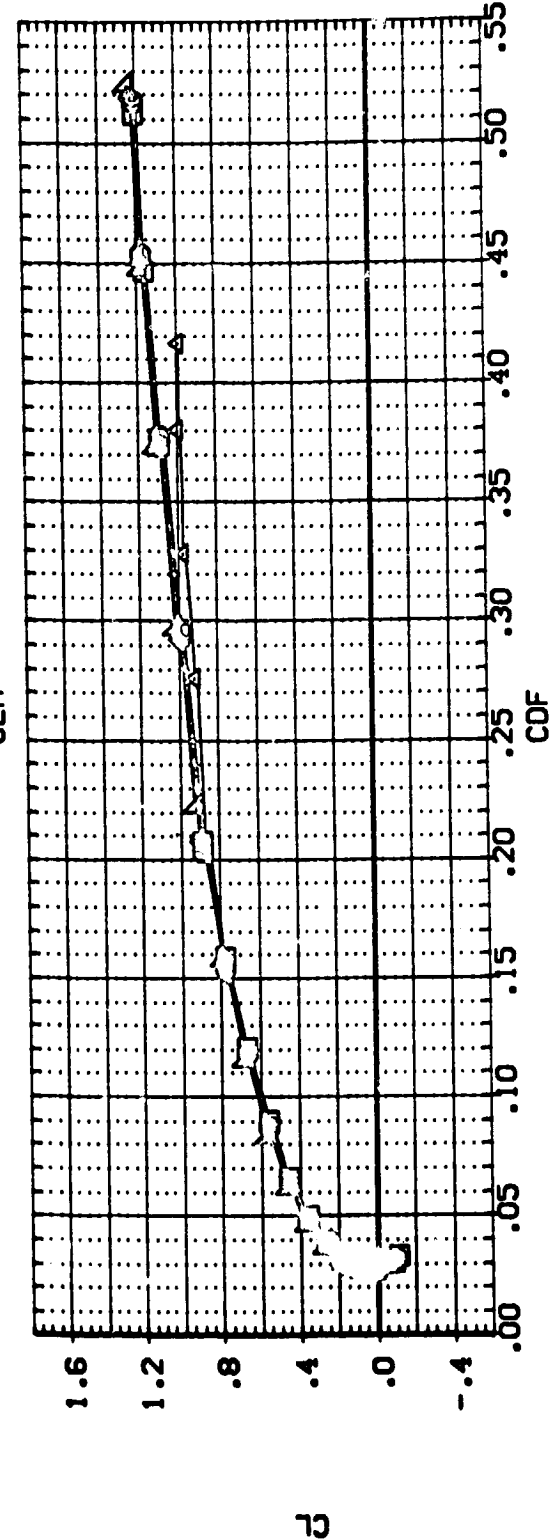
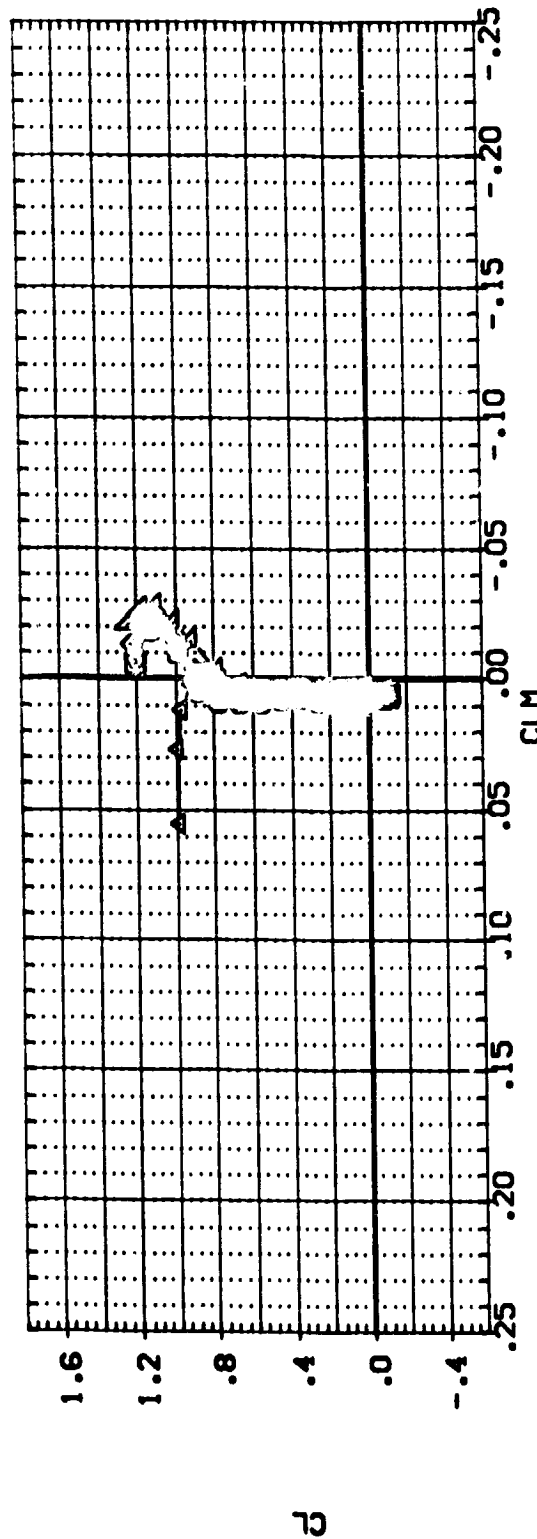
MACUL LIP B.FLAP RUDDER REFERENCE INFORMATION  
 .007 4.000 -18.000 .000 SREF 4.4119 50.FT.  
 .110 4.000 -18.000 .000 LREF 19.2959 INCHES  
 .250 4.000 -18.000 .000 BREF 37.9349 INCHES  
 .430 4.000 -18.000 .000 XREF 43.5974 INCHES  
 .000 .000 .000 YREF 16.2000 INCHES  
 .000 .000 .000 ZREF 16.2000 INCHES  
 .000 .000 .000 SCALE .0405



EFFECT OF ABES LOCATION (4 NACELLES) GEAR OFF

(A)MACH = .20

DATA SET SYMBOL	CONFIDENCE	DESCRIPTION	NACVL	LIP	B.FLAP	RULOR	REFERENCE INFORMATION
(ADN011)	NR.701.0405	028 B16C507F143A7V5X10	.000	4.000	-19.000	.000	SREF 4.4119 59.47. INCHES
(ADN041)	NR.701.0405	023 B16C507F143A7V5X10	.100	4.000	-19.000	.000	LREF 19.2039 19.20. INCHES
(ADN057)	NR.701.0405	023 B16C507F143A7V5X10	.250	4.000	-19.000	.000	CREF 37.6019 37.60. INCHES
(ADN165)	NR.701.0405	023 B16C507F143A7V5X10	.450	4.000	-19.000	.000	XPREF 43.3374 43.34. INCHES
(ADN133)	NR.701.0405	028 B16C507F143A7V5X10					YREF 16.2000 16.20. INCHES
							ZREF .0405 .04. INCHES
							SCALE .0405 .04. INCHES



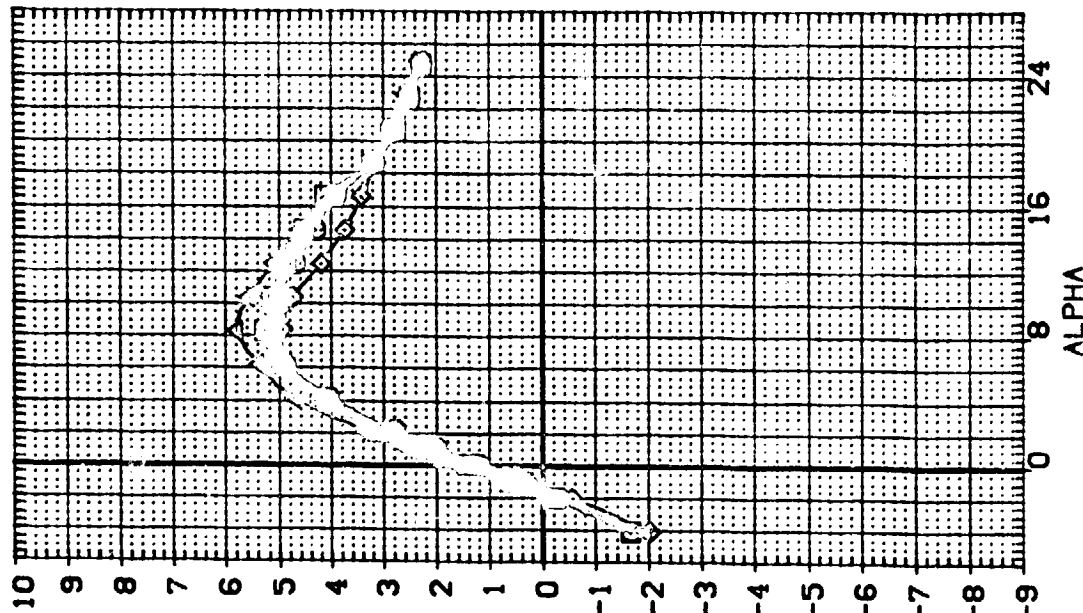
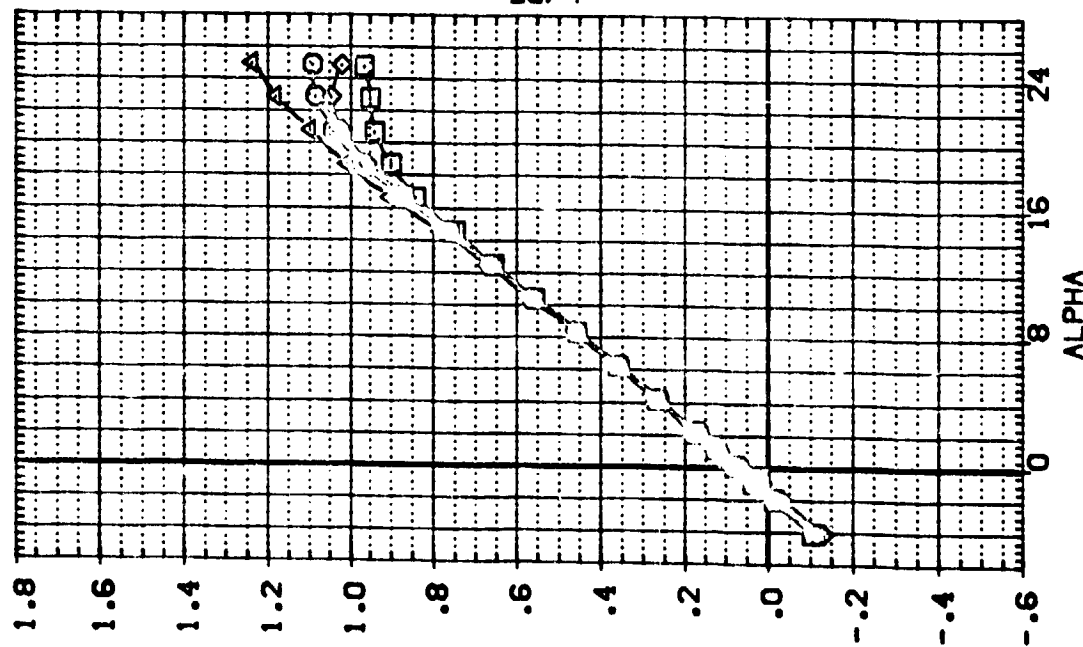
EFFECT OF ABES LOCATION (4 NACELLES) GEAR OFF  
 (A)MACH = .20

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(/DNG43) NR.701.0405 053 816CS07F 14531267V5X10  
 (ADNG57) NR.701.0405 053 816CS07F 14531267V5X10  
 (ADNG31) NR.701.0405 053 816CS07F 14531267V5X10  
 (ADN122) NR.701.0405 053 816CS07F 14531267V5X10

NACVAL LIP 0-FLAP ROLLER  
 .000 4.000 -18.000 .000  
 .450 4.000 -18.000 .000  
 .000 4.000 -18.000 .000

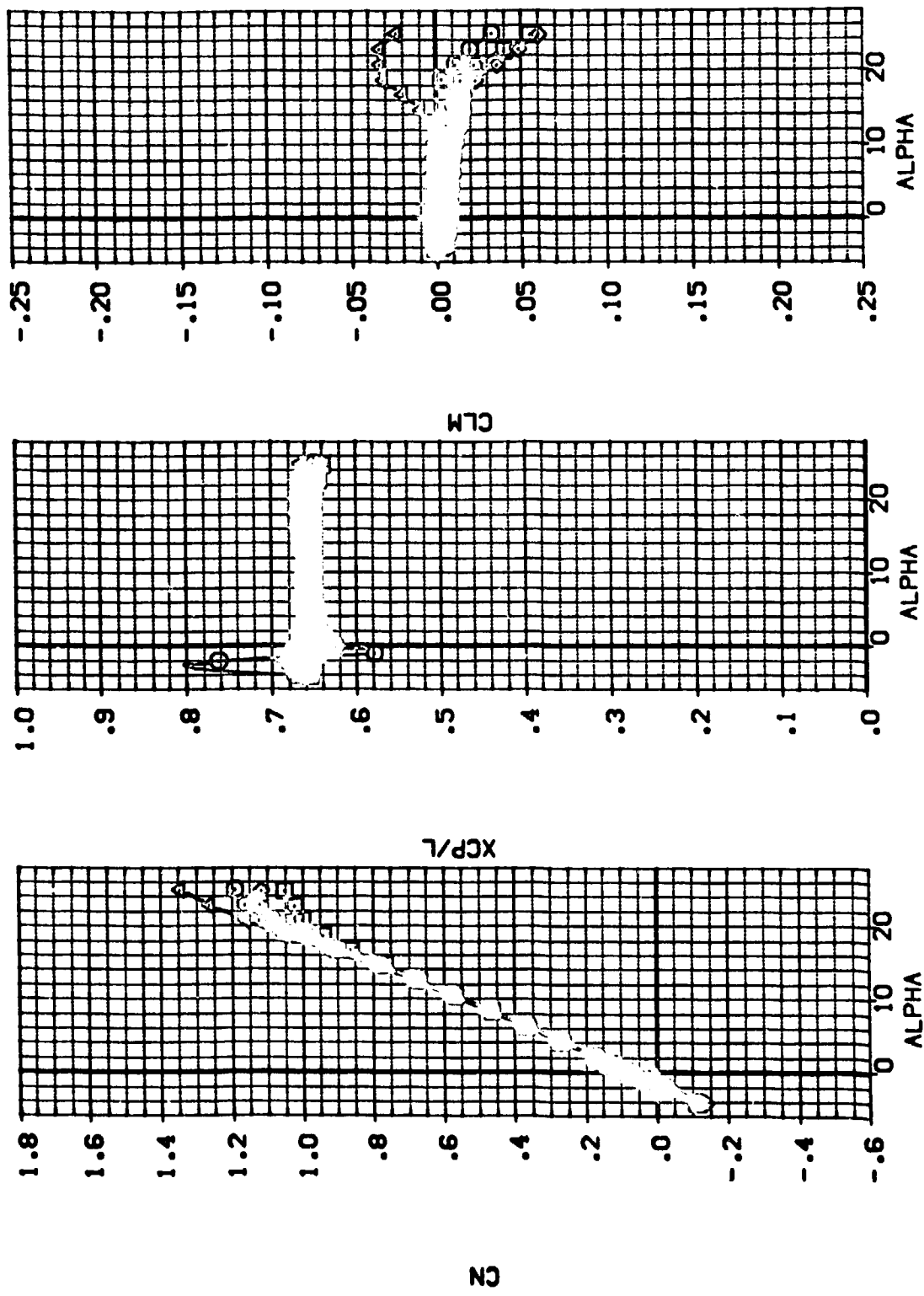
REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2859 INCHES  
 SREF 37.9349 INCHES  
 XREF 43.5874 INCHES  
 YREF 0.000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405



EFFECT OF ABES LOCATION (6 NACELLES) GEAR ON

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NACA/L	LIP	B. FLAP	RUDDER	REFERENCE INFORMATION
(ADN043)	N8.701.0405 038 816C507F 175312487V SX10	.000	4.000	-18.000	.000	4.4119 59.FT. INO-ES
(ADN057)	N8.701.0405 038 816C507F 175312487V SX10	.490	4.000	-18.000	.000	19.2853 INO-ES
(ADN091)	N8.701.0405 038 816C507F 175312487V SX10	.000	4.000	-18.000	.000	37.9349 INO-ES
(ADN122)	N8.701.0405 038 816C507F 175312487V SX10	.000	4.000	-18.000	.000	43.5974 INO-ES
						YARP .0000 INO-ES
						ZARP 16.2000 INO-ES
						SCALE .0405 INO-ES

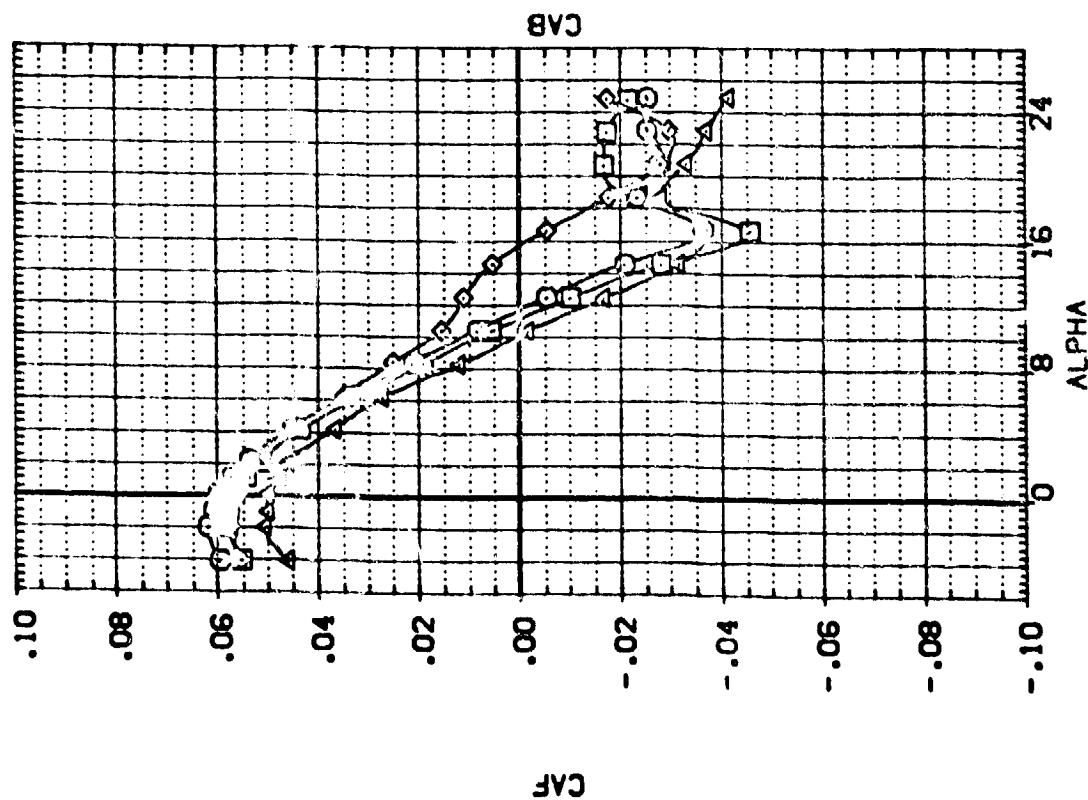


EFFECT OF ABES LOCATION (6 NACELLES) GEAR ON

(A)MACH = .20

DATA SET 5000 C38 LOCATION DESCRIPTION

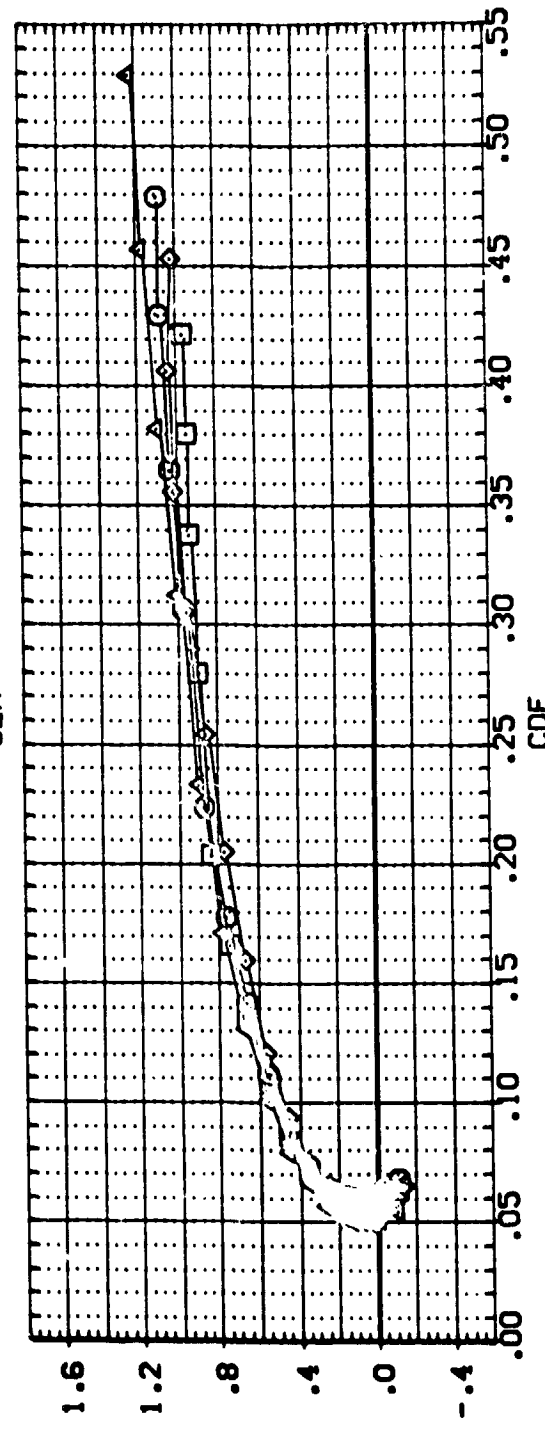
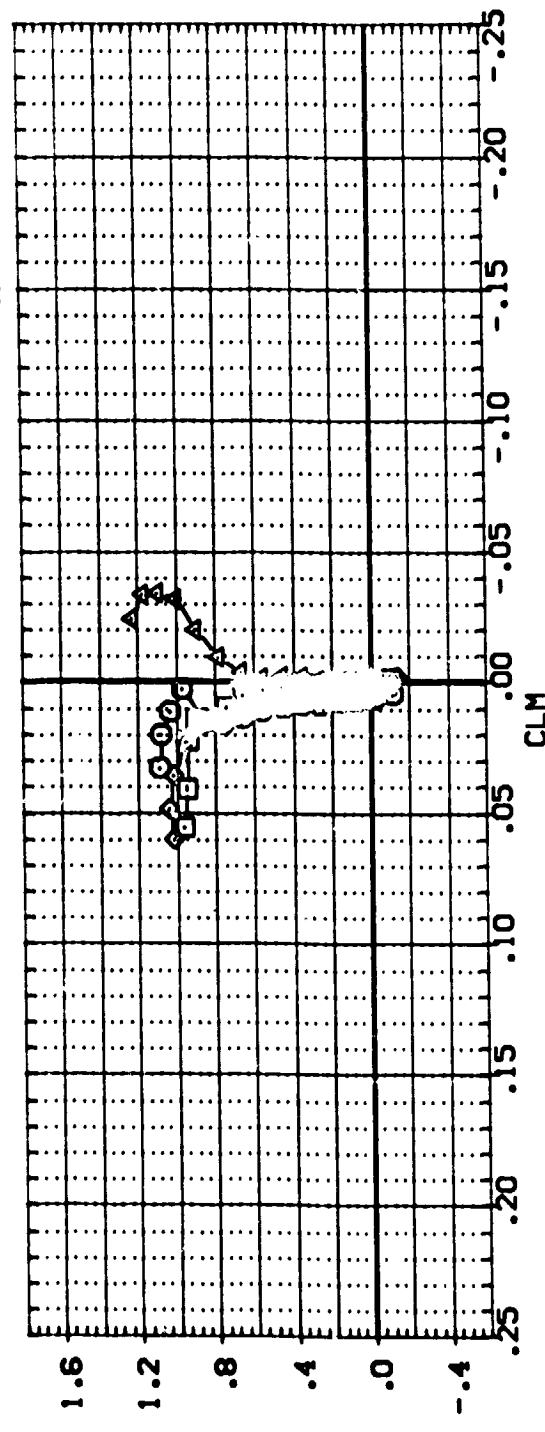
ACU	LIP	BUILDUP	SCALE	FORCE	DESCRIPTION
000	4.000	-18.000	100	4.419	30.119
000	4.000	-18.000	100	19.233	19.233
000	4.000	-18.000	100	37.503	37.503
000	4.000	-18.000	100	60.574	60.574
000	4.000	-18.000	100	16.200	16.200
000	4.000	-18.000	100	16.200	16.200



EFFECT OF ABES LOCATION (6 NACELLES) GEAR ON

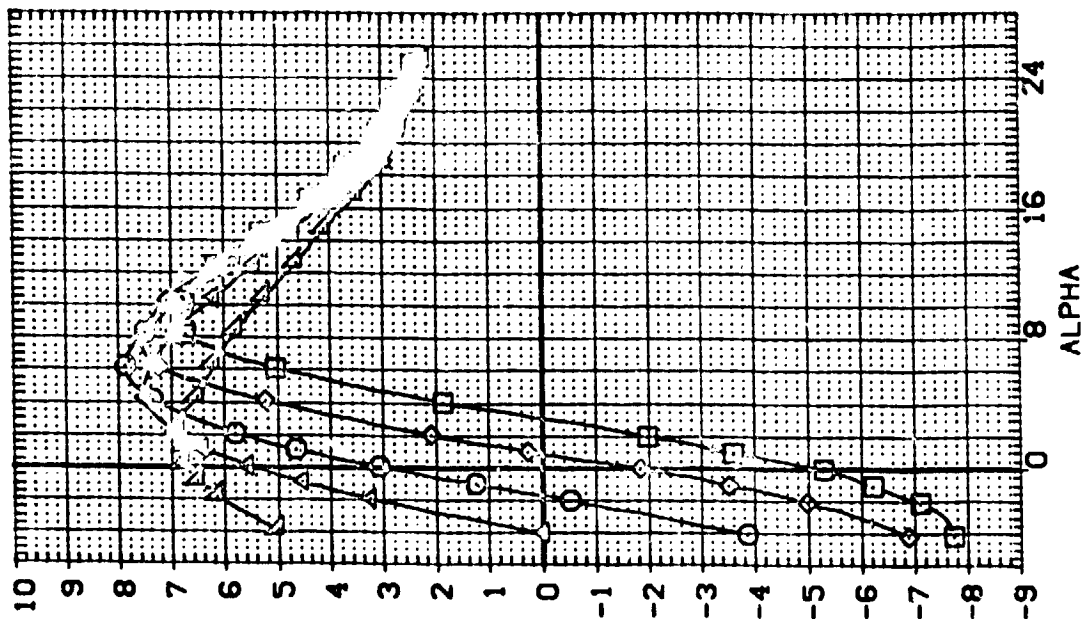
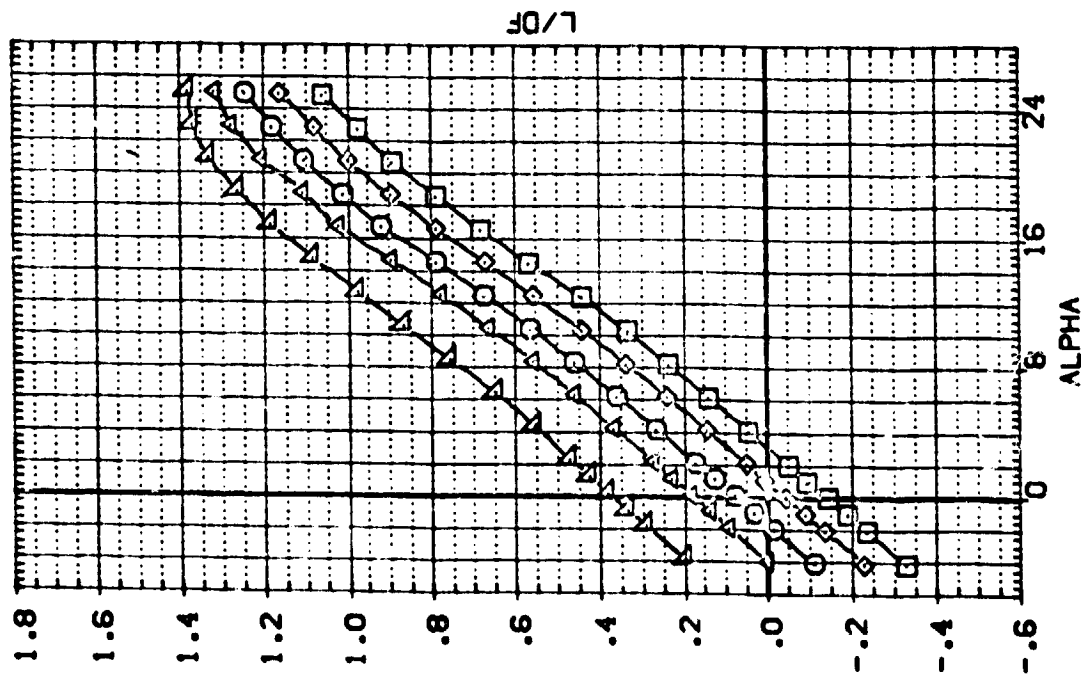
(A)MACH = .20

DATA SET SYEQ	CONF	QUANT	DESCRIPTION	MACAL	LIP	B. FLAP	NUMBER	REFERENCE INFORMATION
[ADNG43]	0	NR.701.0405	003 816507F 17512487V5X10	.000	4.000	-18.000	.000	SREF 4.4119 50.FT.
[ADNG57]	0	NR.701.0405	003 816507F 17512487V5X10	.450	4.000	-18.000	.000	LREF 19.2839 INCHES
[ADNG61]	0	NR.701.0405	003 816507F 17512487V5X10	.000	4.000	-18.000	.000	BREF 37.8049 INCHES
[ADN122]	0	NR.701.0405	003 816507F 1612487V5X9	.000	4.000	-18.000	.000	XREF 43.5574 INCHES
								YREF 16.0000 INCHES
								ZREF 16.0000 INCHES
								SCALE .0405



EFFECT OF ABES LOCATION (6 NACELLES) GEAR ON

CAJMACH = .20

[illegible]

## ELEVON EFFECTIVENESS, ABES OFF

**CALMACH = .20**



DATA SET SYMBOL    CASE LOCATION    CUMULATIVE

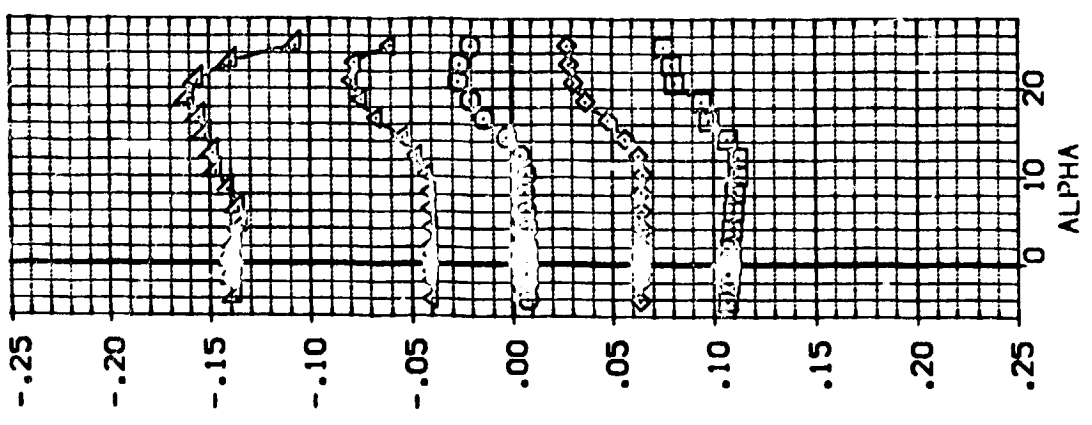
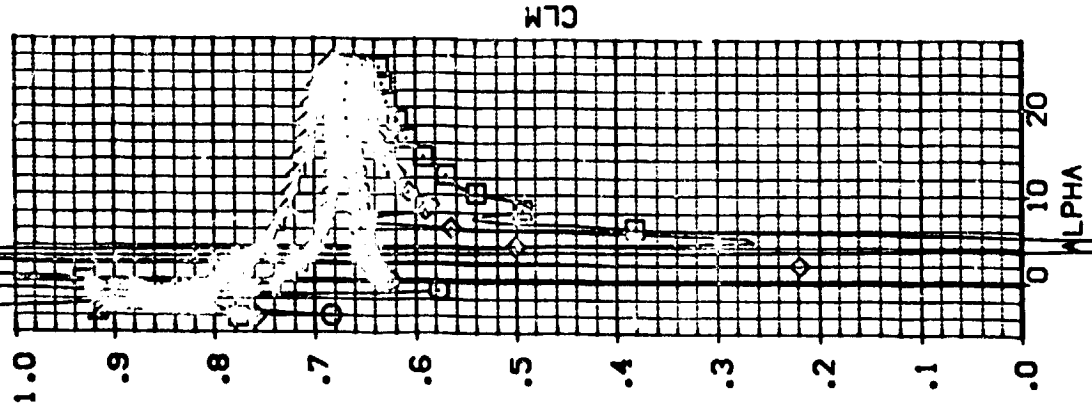
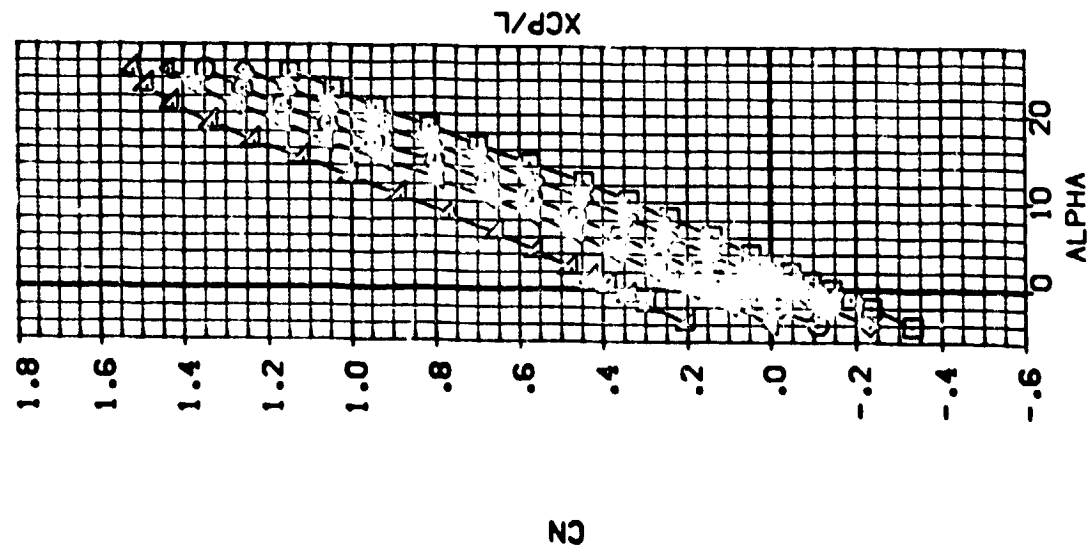
(ADN127)	N9.701.0405	033	BI6CSUT147E16VSX9
(ADN128)	N9.701.0405	033	BI6CSUT147E16VSX9
(ADN133)	N9.701.0405	033	BI6CSUT147E16VSX9
(ADN134)	N9.701.0405	033	BI6CSUT147E16VSX9
(ADN160)	N9.701.0405	033	BI6CSUT147E16VSX9

ELEVON    AIRLIFT    FLUTTER

-10.000	.000	-17.000
-5.000	.000	-13.000
5.000	.000	-13.000
15.000	.000	-18.000

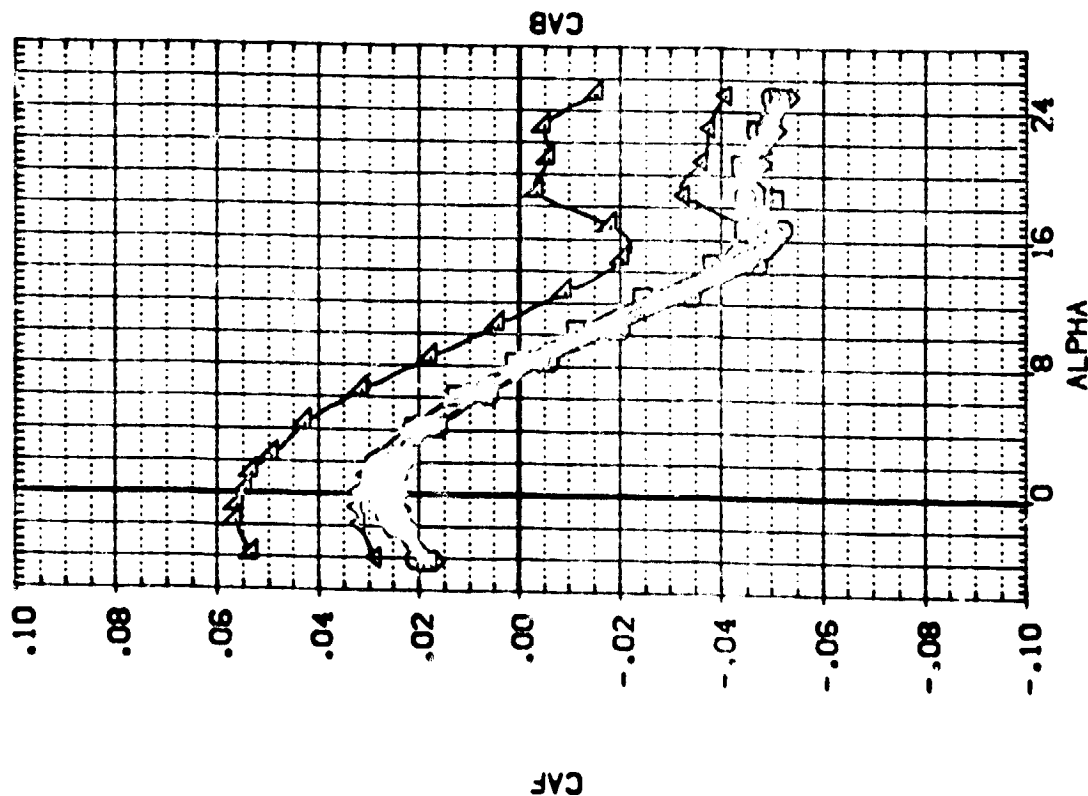
REFERENCE INFORMATION

STEF	4.4119	9.471
REF	19.2839	INDICES
REF	37.8349	INDICES
REF	43.0000	INDICES
REF	16.2000	INDICES
REF	16.0405	SCALE



ELEVON EFFECTIVENESS. ABES OFF  
(A)MACH = .20

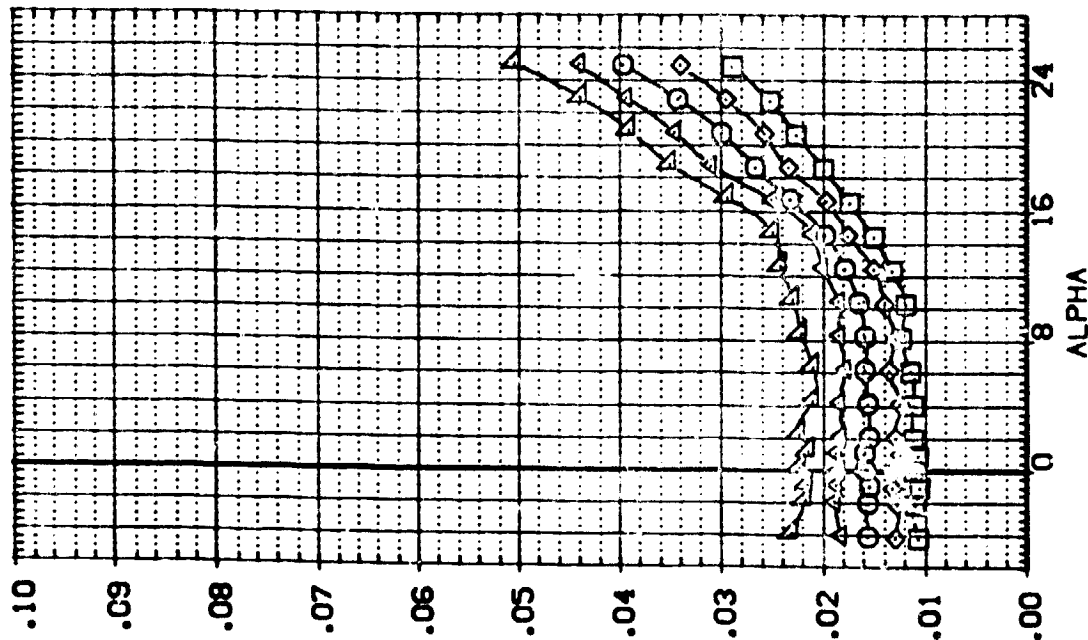
DATA SET SYMBOL    0.5 (GATE) 1.0 (S) 2.0 (S) 3.0 (S) 4.0 (S) 5.0 (S) 6.0 (S) 7.0 (S) 8.0 (S) 9.0 (S) 10.0 (S) 11.0 (S) 12.0 (S) 13.0 (S) 14.0 (S) 15.0 (S) 16.0 (S) 17.0 (S) 18.0 (S) 19.0 (S) 20.0 (S) 21.0 (S) 22.0 (S) 23.0 (S) 24.0 (S) 25.0 (S) 26.0 (S) 27.0 (S) 28.0 (S) 29.0 (S) 30.0 (S) 31.0 (S) 32.0 (S) 33.0 (S) 34.0 (S) 35.0 (S) 36.0 (S) 37.0 (S) 38.0 (S) 39.0 (S) 40.0 (S) 41.0 (S) 42.0 (S) 43.0 (S) 44.0 (S) 45.0 (S) 46.0 (S) 47.0 (S) 48.0 (S) 49.0 (S) 50.0 (S) 51.0 (S) 52.0 (S) 53.0 (S) 54.0 (S) 55.0 (S) 56.0 (S) 57.0 (S) 58.0 (S) 59.0 (S) 60.0 (S) 61.0 (S) 62.0 (S) 63.0 (S) 64.0 (S) 65.0 (S) 66.0 (S) 67.0 (S) 68.0 (S) 69.0 (S) 70.0 (S) 71.0 (S) 72.0 (S) 73.0 (S) 74.0 (S) 75.0 (S) 76.0 (S) 77.0 (S) 78.0 (S) 79.0 (S) 80.0 (S) 81.0 (S) 82.0 (S) 83.0 (S) 84.0 (S) 85.0 (S) 86.0 (S) 87.0 (S) 88.0 (S) 89.0 (S) 90.0 (S) 91.0 (S) 92.0 (S) 93.0 (S) 94.0 (S) 95.0 (S) 96.0 (S) 97.0 (S) 98.0 (S) 99.0 (S) 100.0 (S)



ELEVON EFFECTIVENESS, ABES OFF

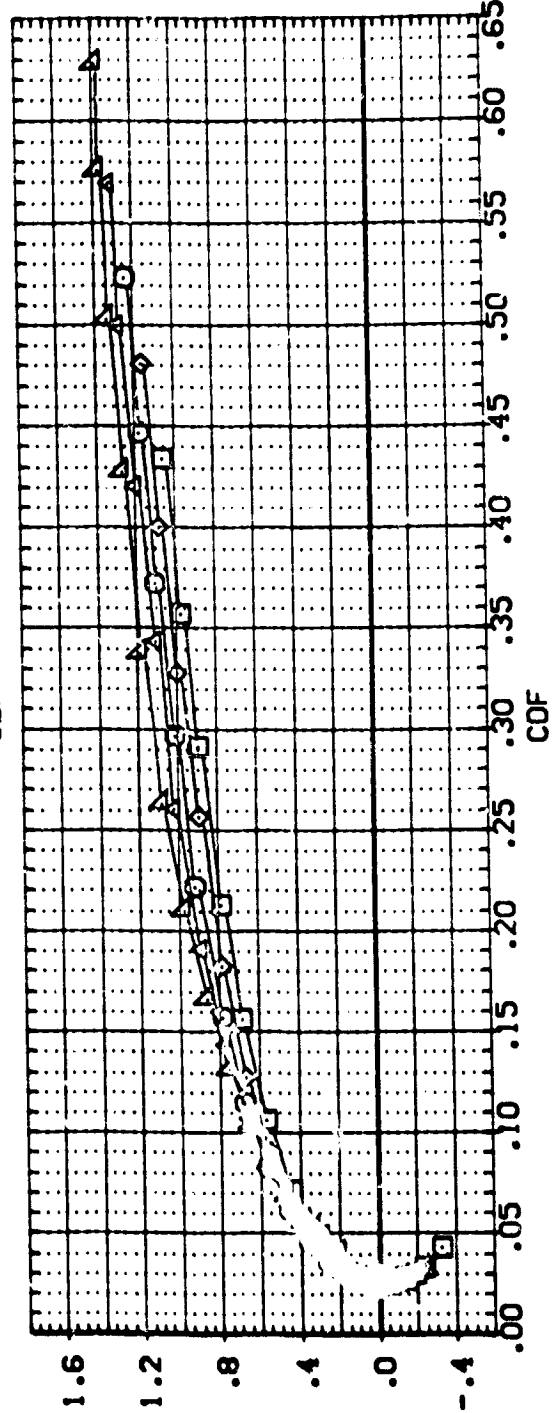
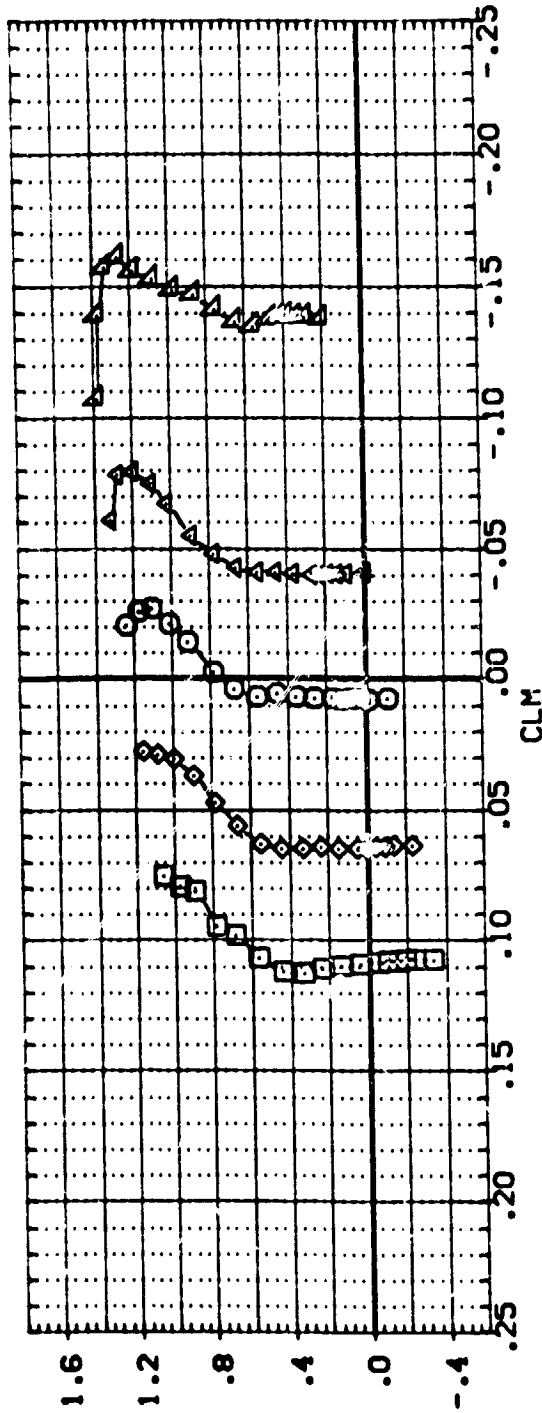
(A)MACH = .20

ELEVON EFFECTIVENESS, ABES OFF (CAF) vs ALPHA. The y-axis ranges from -0.10 to 0.10, and the x-axis (ALPHA) ranges from 0 to 24. Multiple curves are plotted, showing a general downward trend as alpha increases.



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DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ELEVON	AIRLIN	NUMBER	SCALE	REFERS TO INFORMATION
(ADM127)	19.701.0405	CR3 B16C507F1V67E18V5X9	-10.000	.000	.000	-19.000	SCOF 4.4113
(ADM128)	19.701.0405	CR3 B16C507F1V67E18V5X9	-5.000	.000	.000	-19.000	LBREF 19.2553
(ADM129)	19.701.0405	CR3 B16C507F1V67E18V5X9	.000	.000	.000	-19.000	LBREF 37.5243
(ADM124)	19.701.0405	CR3 B16C507F1V67E18V5X9	.000	.000	.000	-19.000	XC-10 43.1074
(ADM160)	19.701.0405	CR3 B16C507F1V67E18V5X9	.000	.000	.000	-19.000	YREF 16.2000
							ZREF 16.2000
							SCALE .0405



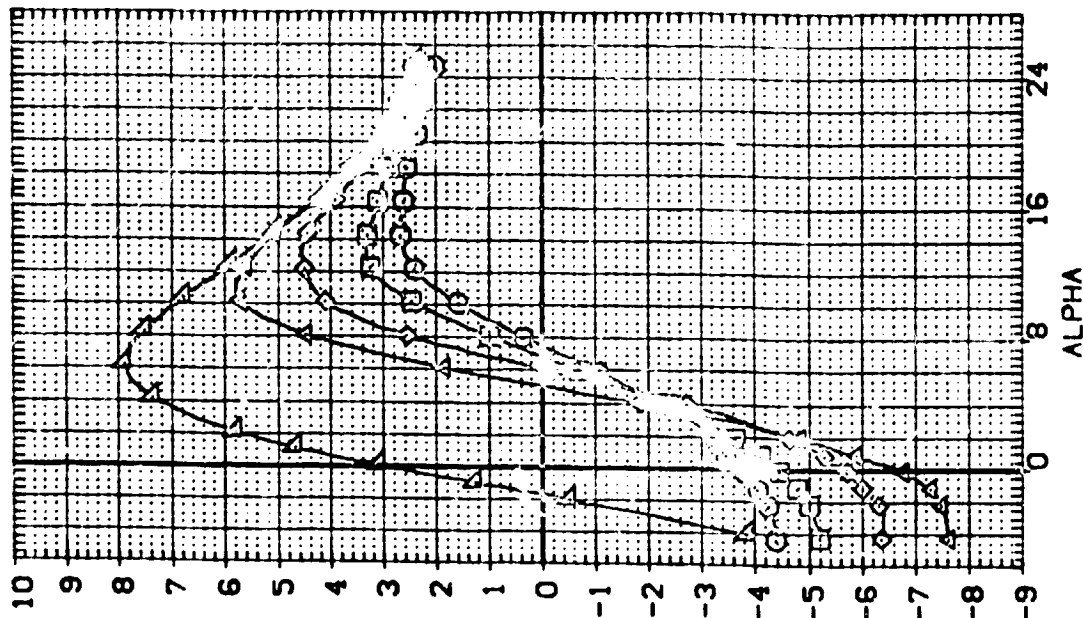
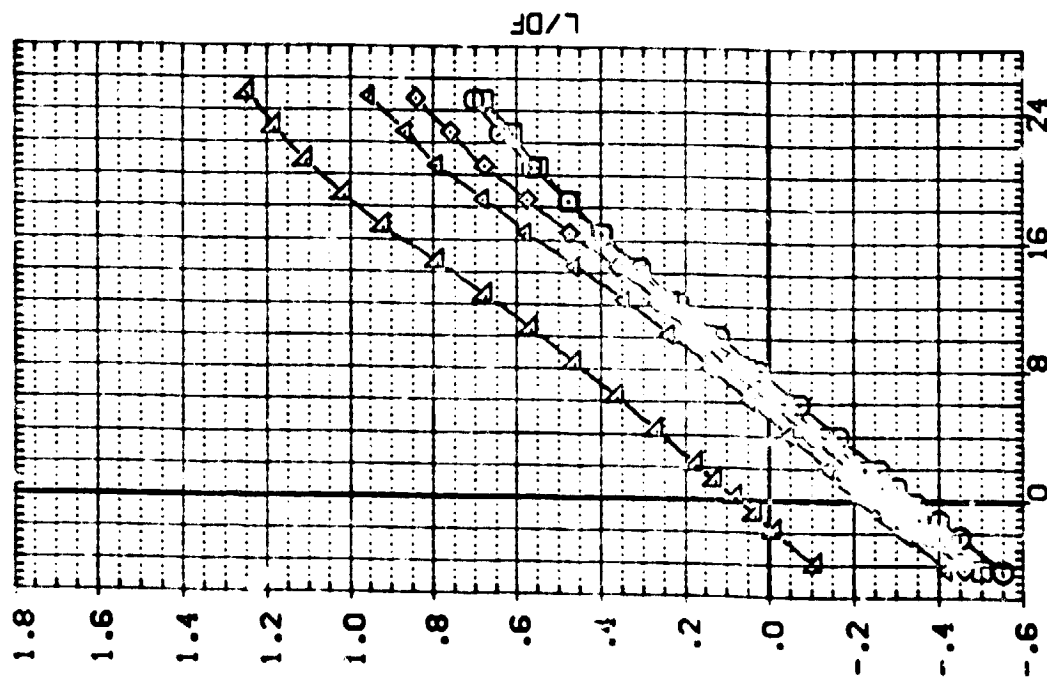
ELEVON EFFECTIVENESS, ABES OFF

(A)MACH = .20

DATA SET 5780. CONFIGURATION DESCRIPTION

CONF	DESCRIPTION
NR.701.0405	CONF 816507F 167E1BVS3
NR.701.0405	CONF 816507F 167E1BVS3
NR.701.0405	CONF 816507F 167E1BVS3
NR.701.0405	CONF 816507F 167E1BVS3
NR.701.0405	CONF 816507F 167E1BVS3

ELEVON	ALIGN	RUDDER	SLIP	CONF	DESCRIPTION	SCALE
-40.000	.000	.000	-12.000	CONF	4.4113	SCALE
-30.000	.000	.000	-12.000	CONF	19.7509	SCALE
-20.000	.000	.000	-12.000	CONF	47.9313	SCALE
-15.000	.000	.000	-12.000	CONF	49.0074	SCALE
	.000	.000	-12.000	CONF	.0000	SCALE
	.000	.000	-12.000	CONF	16.2070	SCALE



ELEVON EFFECTIVENESS, ABES OFF

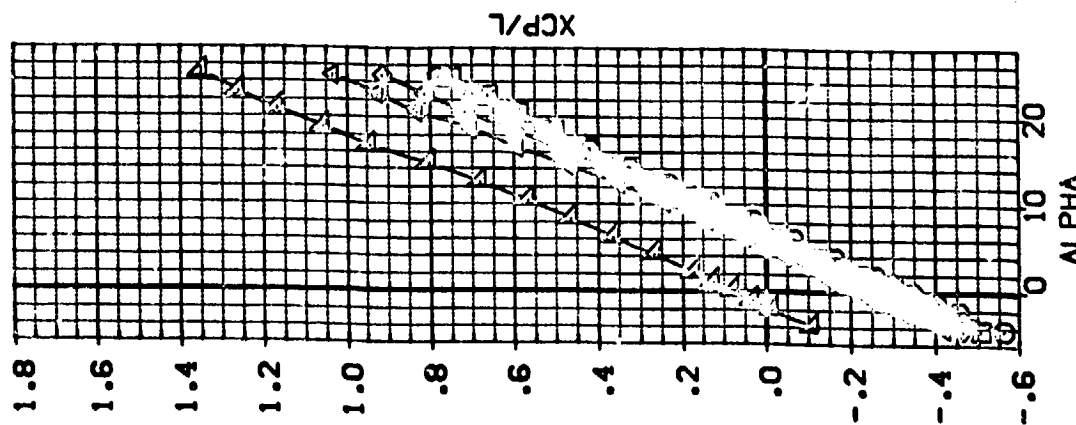
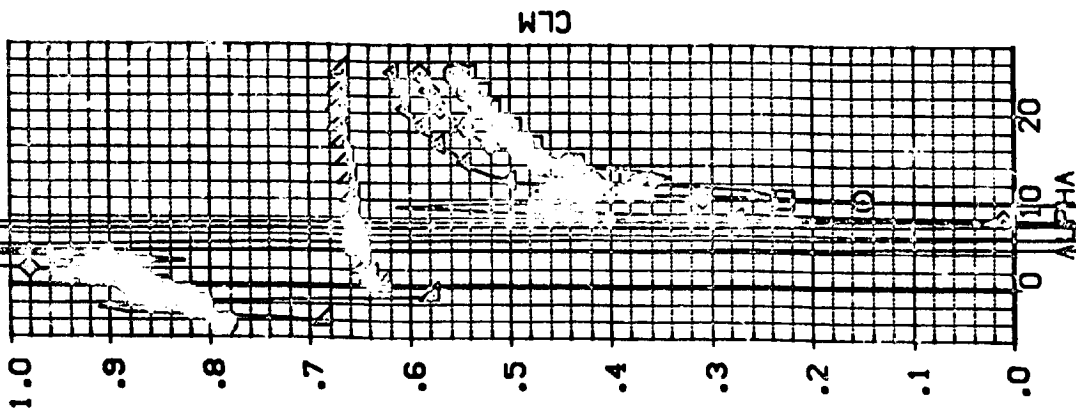
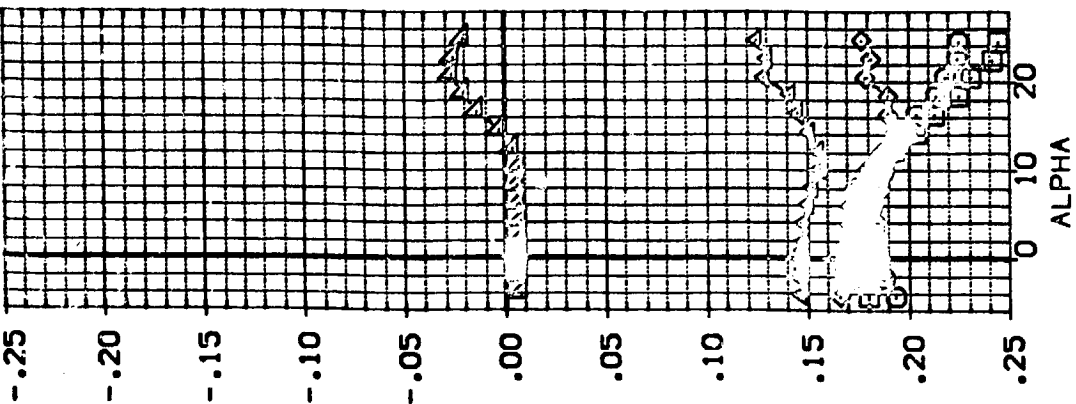
(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(A01164)	NR.701.0405 003	B18C507E1V87E18V5X9
(A01163)	NR.701.0405 003	B18C507E1V87E18V5X9
(A01162)	NR.701.0405 003	B18C507E1V87E18V5X9
(A01161)	NR.701.0405 003	B18C507E1V87E18V5X9
(A01133)	NR.701.0405 003	B18C507E1V87E18V5X9

PERCENTAGE OF DATA POINTS

CONF	4.4113	SCALE
LREF	17.2833	INDEXES
BREF	56.0313	INDEXES
XREF	43.0000	INDEXES
YREF	0.0000	INDEXES
ZREF	16.4000	INDEXES
SCALE	.0405	SCALE

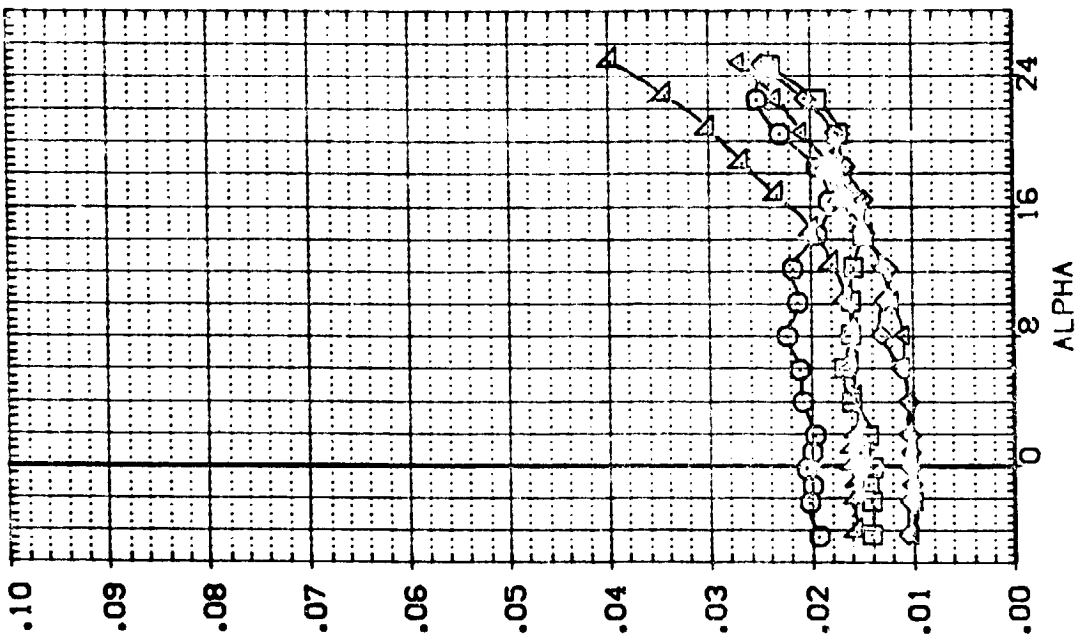


ELEVON EFFECTIVENESS, ABES OFF

(A)MACH = .20

[illegible]

OFFSHORE INFORMATION	
SRF	4.4119
LREF	19.4309
GRSF	37.9239
WTRP	23.5074
YRGP	.0000
ZRGP	16.2000
SCALE	.0405
	50.FT.
	INCHES
	INCHES
	INCHES
	INCHES
	SCALE



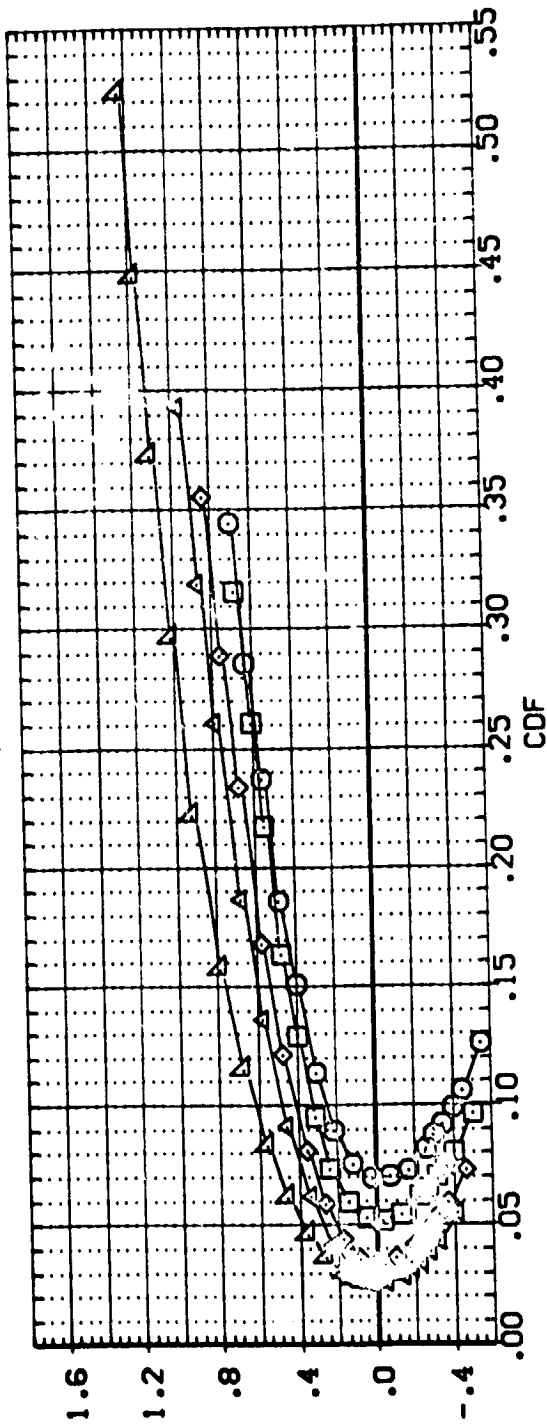
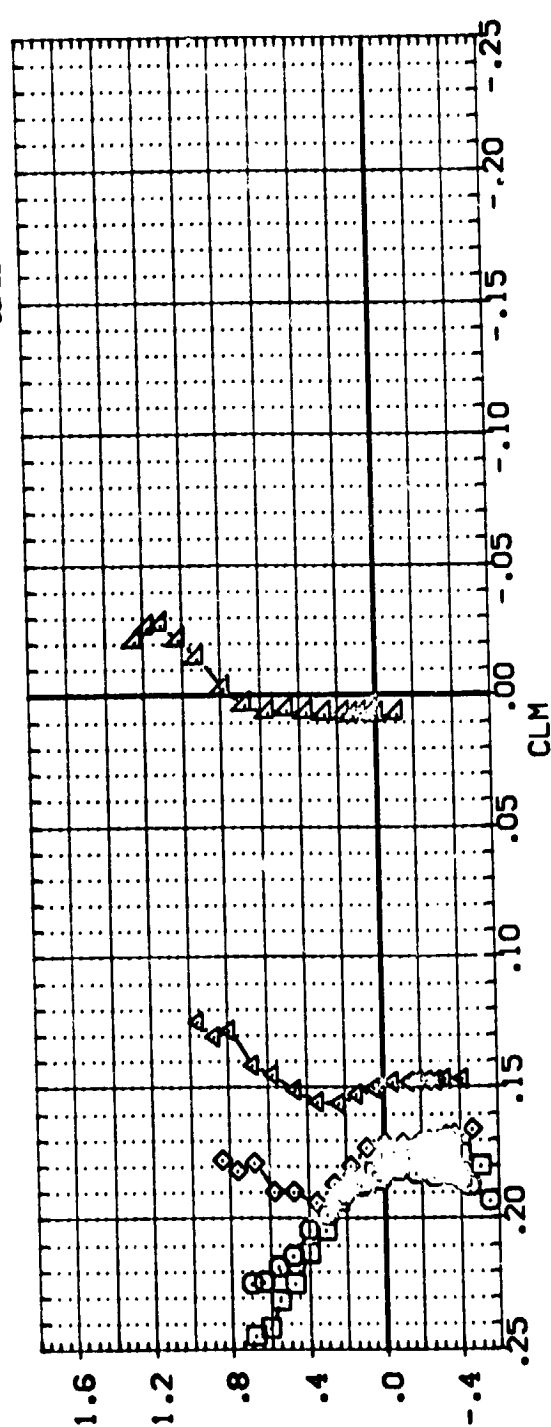
**[A]MACH = .20**

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ADN164)	NR.701.0405	CR8	816CSUTF	V87E18V5X9
(ADN163)	NR.701.0405	CR8	816CSUTF	V87E18V5X9
(ADN162)	NR.701.0405	CR8	816CSUTF	V87E18V5X9
(ADN161)	NR.701.0405	CR8	816CSUTF	V87E18V5X9
(ADN133)	NR.701.0405	CR8	816CSUTF	V87E18V5X9

REFERENCE INFORMATION

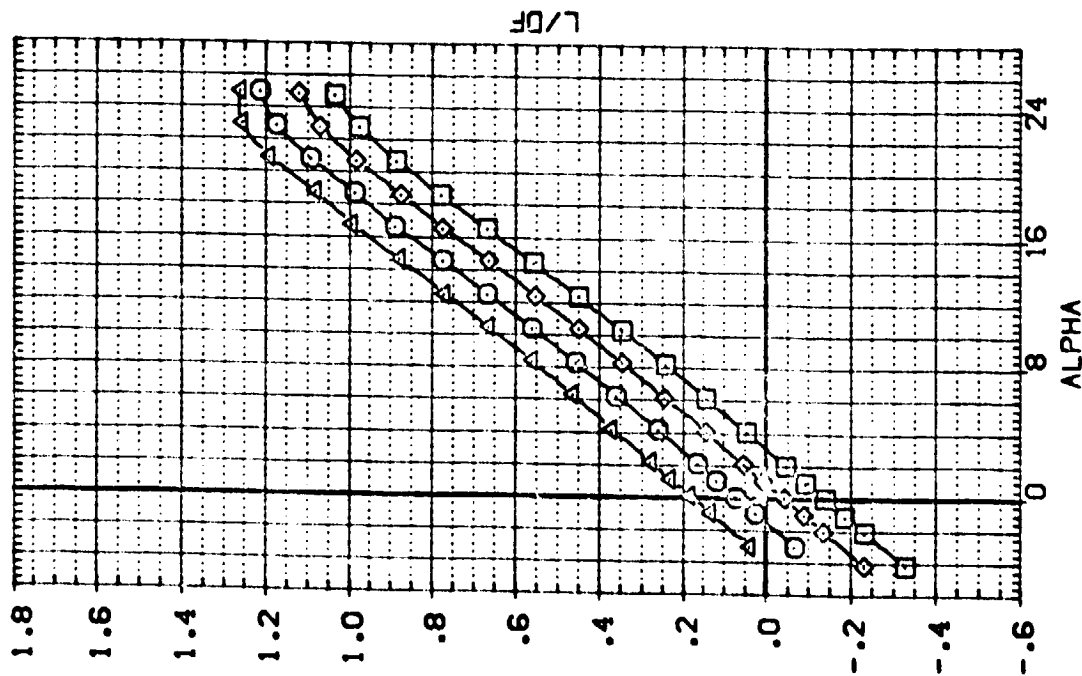
SREF	4.4119	50.FT.
LREF	19.2393	NOES
BREF	37.5319	NOES
XRRP	43.5574	NOES
YRRP	.0000	NOES
ZRRP	16.2000	NOES
SCALE	.0405	SCALE



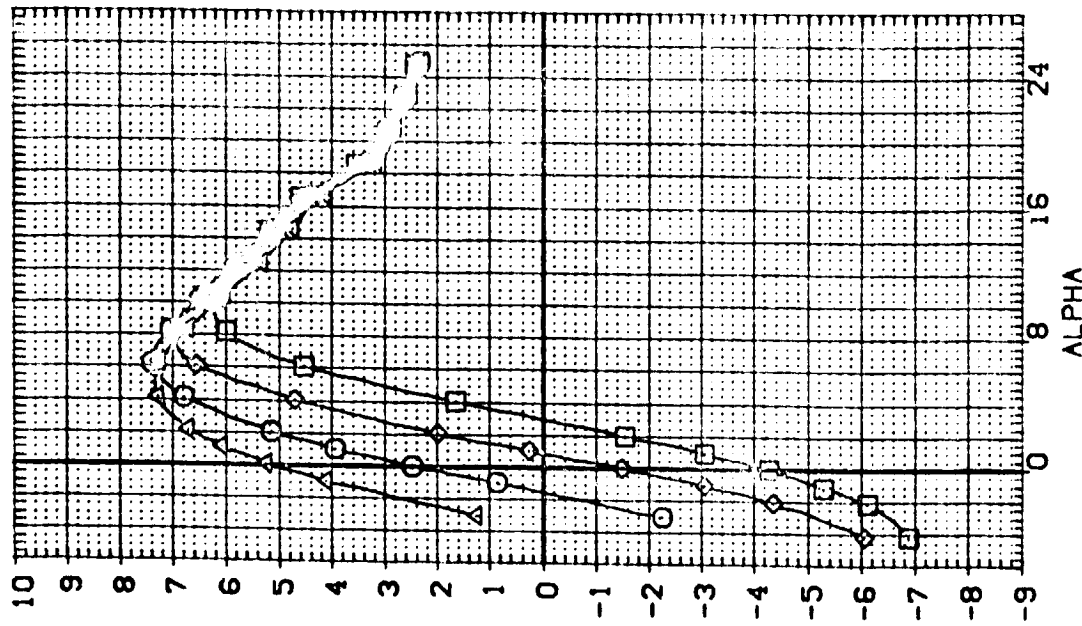
ELEVON EFFECTIVENESS, ABES OFF

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (Z04018) NR.701.0405 088 B16C5D7F143467E18V5X10  
 (Z04017) NR.701.0405 088 B16C5D7F143187E18V5X10  
 (AD04011) NR.701.0405 088 B16C5D7F143187V5X10  
 (AD04008) NR.701.0405 088 B16C5D7F143187E18V5X10



ELEVON MACAL LIP 3-RAP REFERENCE INFORMATION  
 -10.000 1.000 -18.000 SREF 4.4119 51.57  
 -5.000 4.000 -18.000 LREF 19.2358 110.65  
 5.000 4.000 -18.000 BREF 37.9349 110.65  
 0.000 4.000 -18.000 XREF 43.5874 110.65  
 0.000 4.000 -18.000 YREF 0.000 110.65  
 0.000 4.000 -18.000 ZREF 16.2000 110.65  
 0.000 4.000 -18.000 SCALE .0405



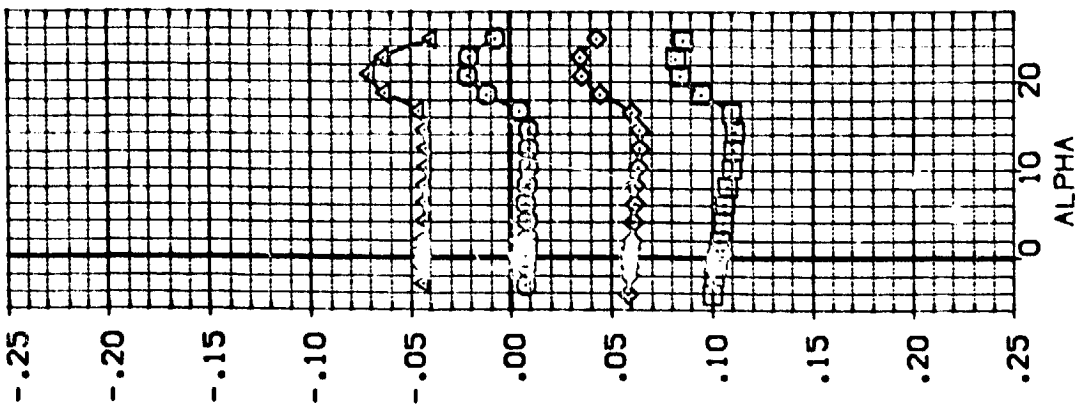
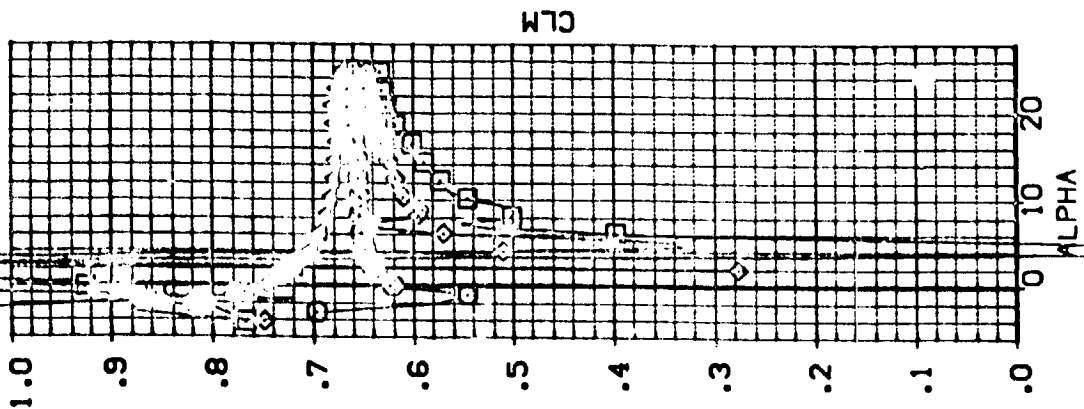
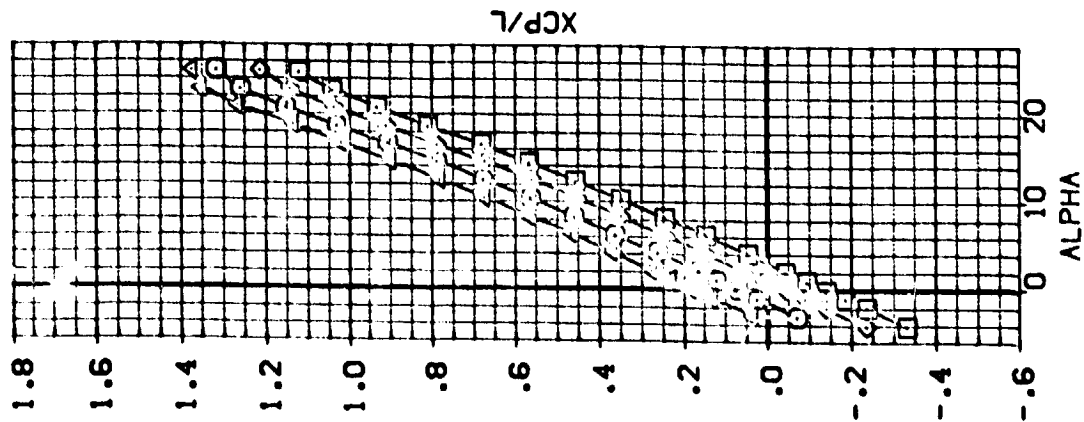
ELEVON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

(A)MACH = .20



DATA SET 51800 UNF LOCATION DESCRIPTION  
 (ZD-018) 18.701.0405 098 818507F143V87E18VSX10  
 (ZD-017) 18.701.0405 098 818507F143V87E18VSX10  
 (AD-011) 18.701.0405 098 818507F143V87E18VSX10  
 (AD-009) 18.701.0405 098 818507F143V87E18VSX10

ELEVON MACVA LIP R/MAP REFERENCE INFORMATION  
 -10.000 .000 4.000 -18.000 SREF 50 FT.  
 -5.000 .000 4.000 -18.000 UREF INCHES  
 5.000 .000 4.000 -18.000 BREF INCHES  
 XREF 43.5574 INCHES  
 YREF .0700 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405

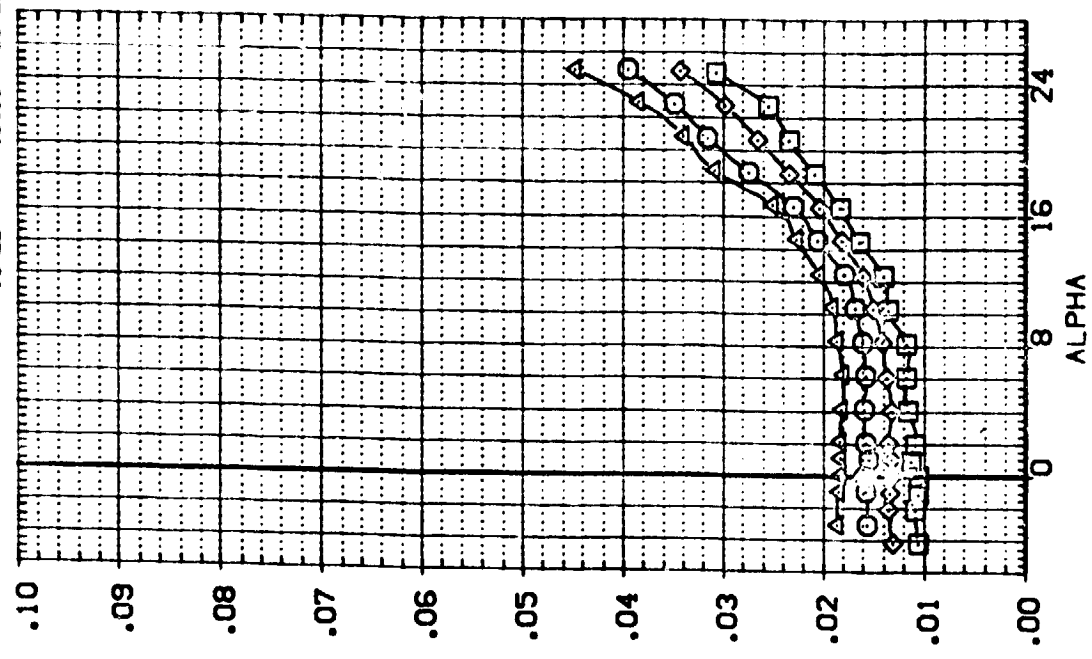
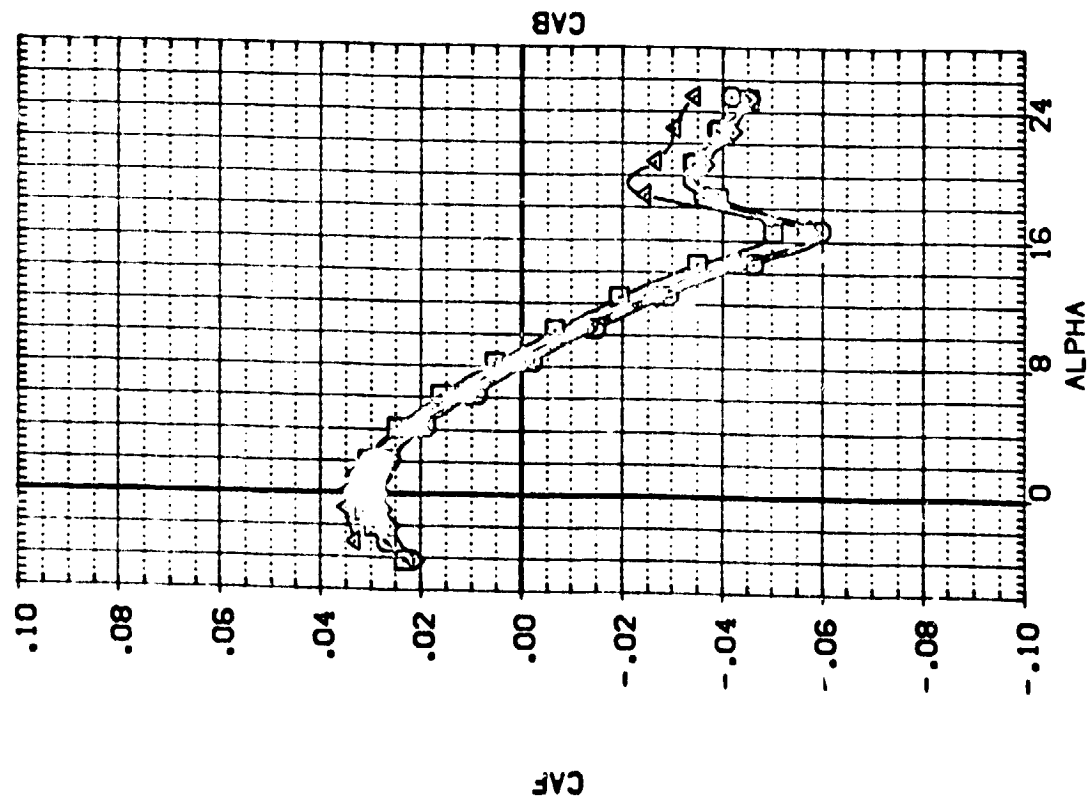


ELEVON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZD4018) 12.701.0405 008 B16CS07F143167E18VSX10  
 (ZD4017) 12.701.0405 008 B16CS07F143167E18VSX10  
 (AD4011) 12.701.0405 008 B16CS07F143167E18VSX10  
 (AD4009) 12.701.0405 008 B16CS07F143167E18VSX10

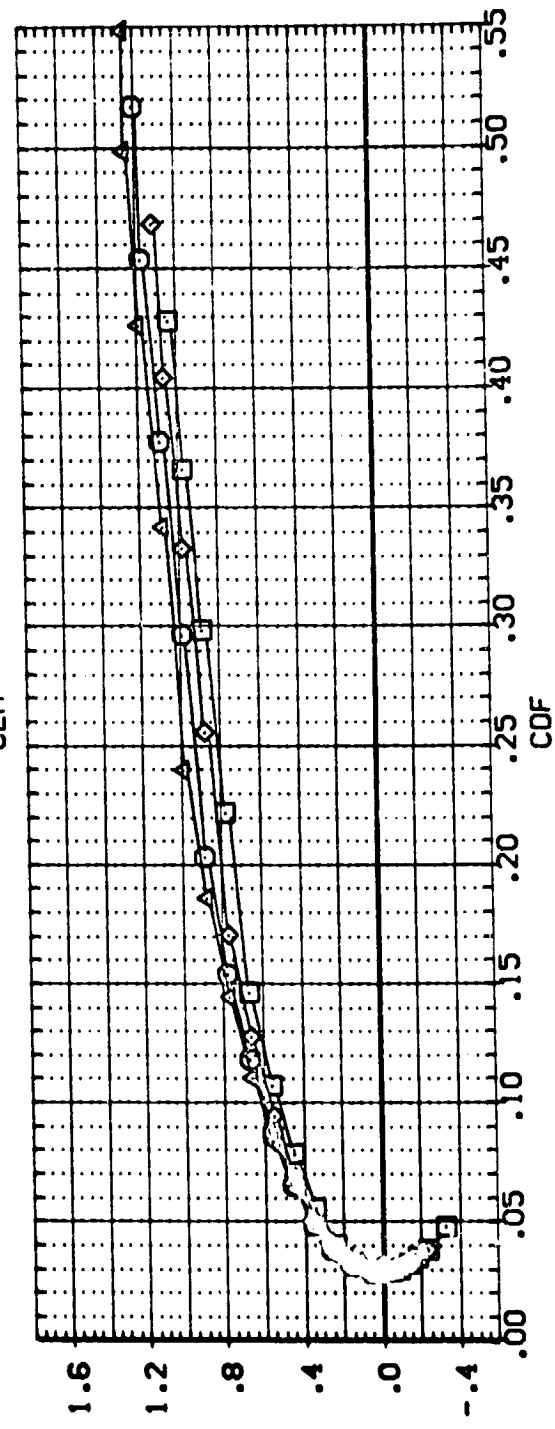
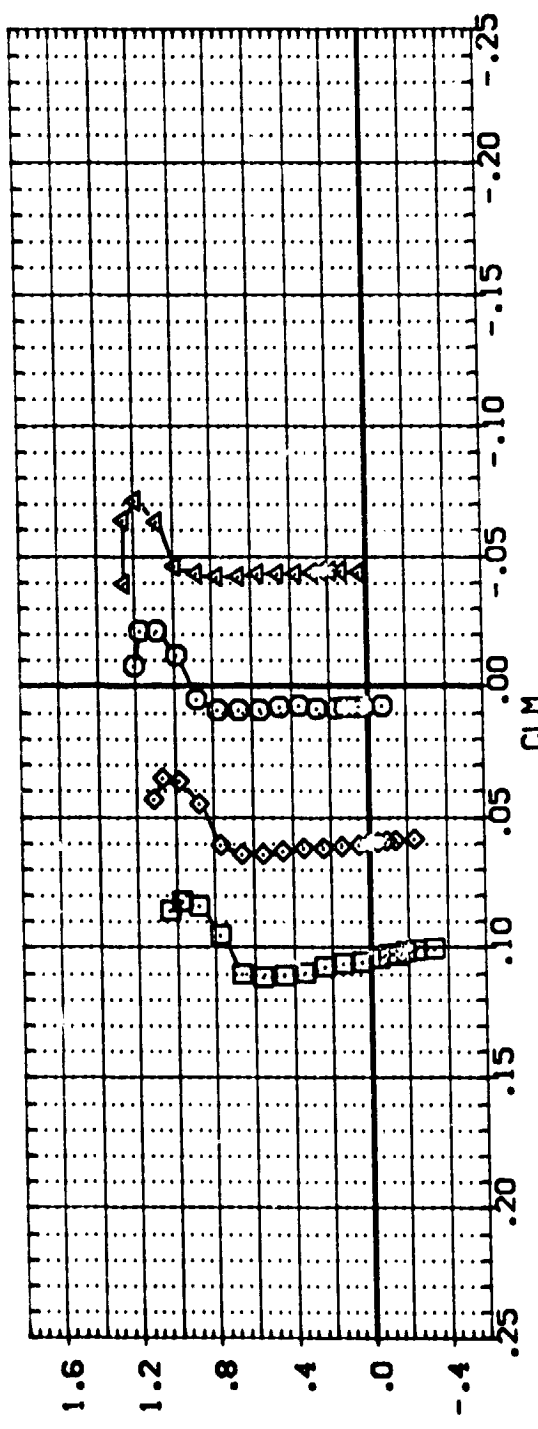
ELEVON MACAL LIP B-FLAP  
 -10.000 .000 4.000 -18.000  
 -5.000 .000 4.000 -18.000  
 5.000 .000 4.000 -18.000  
 REFERENCE INFORMATION  
 SREF 4.4119 92.47  
 LREF 19.2333 92.47  
 SREF 37.5333 92.47  
 XREF 43.5574 92.47  
 YREF .0000 92.47  
 ZREF 16.2000 92.47  
 SCALE .0405



ELEVON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

CAJMACH = .20

DATA SET SYMBOL	CLM LOCATION DESCRIPTION	ELEVON	NACAL	LIP	B. FLAP	REFERENCE INFORMATION
[ZD-018]	NR.701.0405 CR8 818C507E 13.87E 18VX10	-10.000	.000	4.000	-19.000	4.4119 SQ.FT.
[ZD-017]	NR.701.0405 CR8 818C507E 13.87E 18VX10	-5.000	.000	4.000	-18.000	19.2593 INCHES
[ADM11]	NR.701.0405 CR8 818C507E 13.87E 18VX10	5.000	.000	4.000	-13.000	37.9349 INCHES
[AD-009]	NR.701.0405 CR8 818C507E 13.87E 18VX10					43.2571 INCHES
						16.2000 INCHES
						0.0405 SCALE



ELEVON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

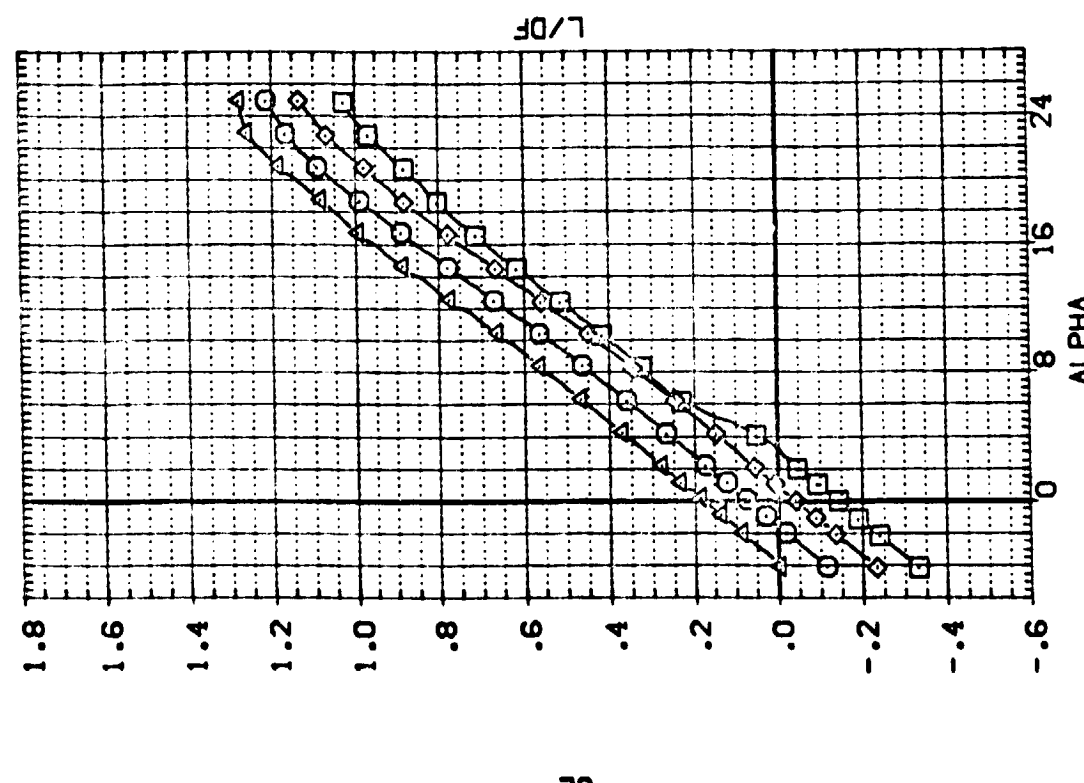
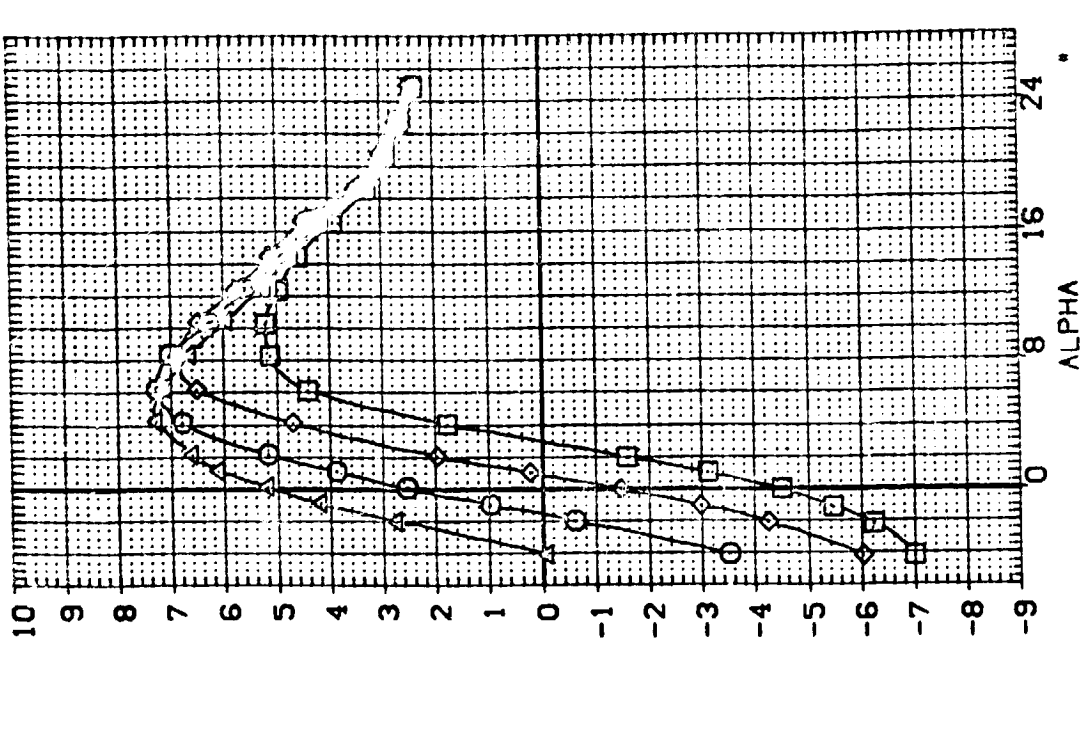
(ADMACH = .20

DATA SET SYMBOL  
 (AD-0419)  
 (AD-0419)  
 (AD-0419)  
 (AD-0419)

COORDINATE DESCRIPTION  
 NR. 701 0405 0-3 B18-507E 13VSX10  
 NR. 701 0405 0-3 B18-507E 13VSX10  
 NR. 701 0405 0-3 B18-507E 13VSX10  
 NR. 701 0405 0-3 B18-507E 13VSX10

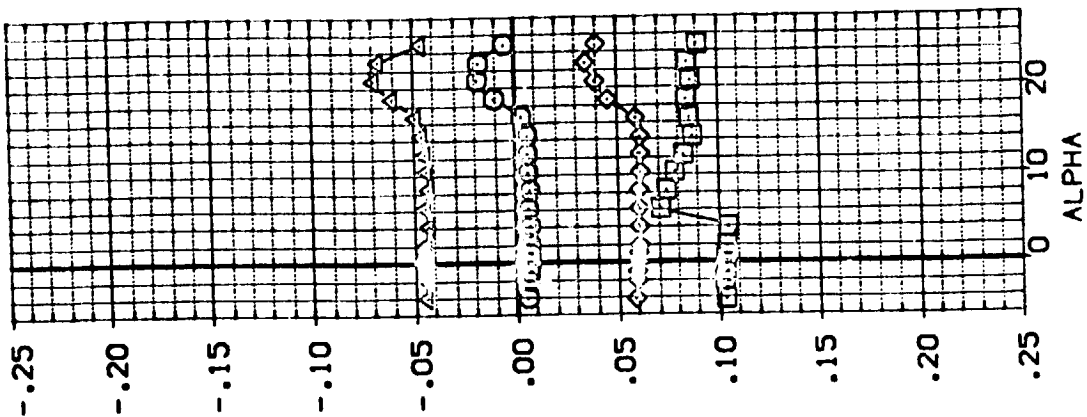
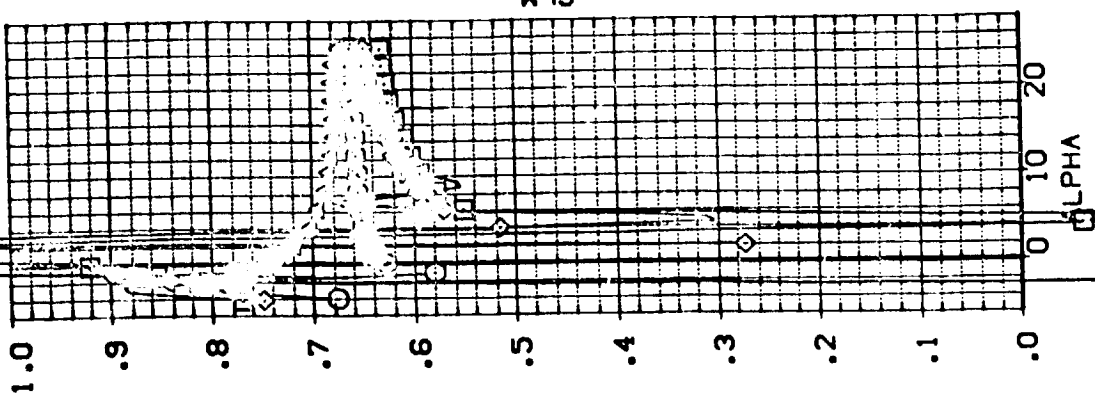
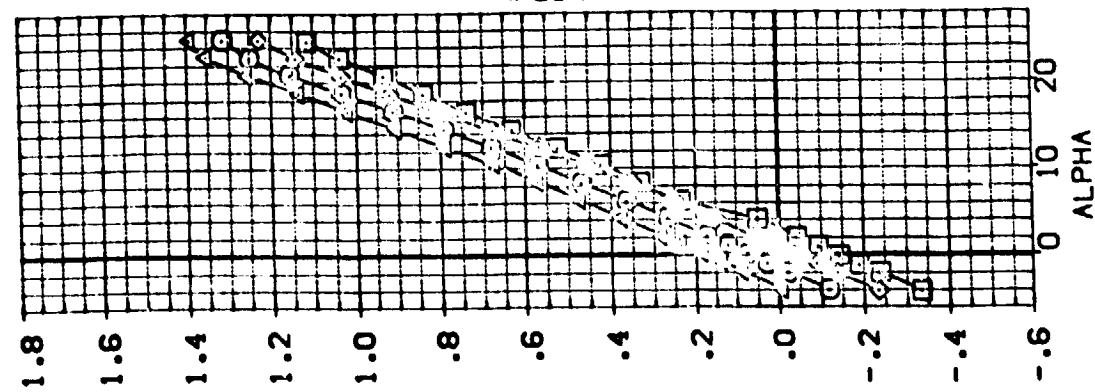
ELEVON  
 -10.000  
 -5.000  
 -5.000  
 5.000

MACAL  
 .100  
 .100  
 .100  
 .100



ELEVON EFFECTIVENESS, ABES MOVED AFT .10( NACELLE LENGTH)(4 NACELLES)  
 (A)MACH = .20

SREF	4.4119	SC.FT.
LREF	19.2039	INCHES
BREF	37.9049	INCHES
XPRP	43.5374	INCHES
YPRP	.0000	INCHES
ZPRP	16.0000	INCHES
SCALE	.0405	SCALE

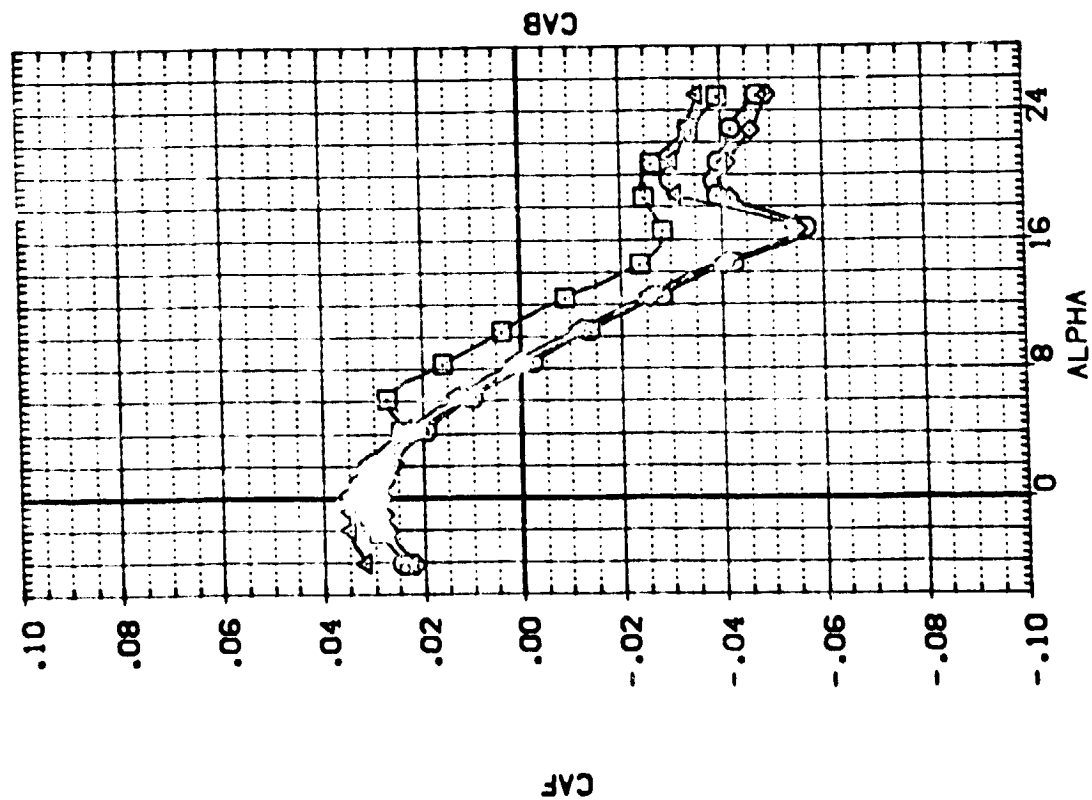


ALPHA  
EVEN EFFECTIVENESS. ABES MOVED AFT. 100 NACELLE LENGTH)(4 NACELLES)

$[A]_{MACH} = .20$

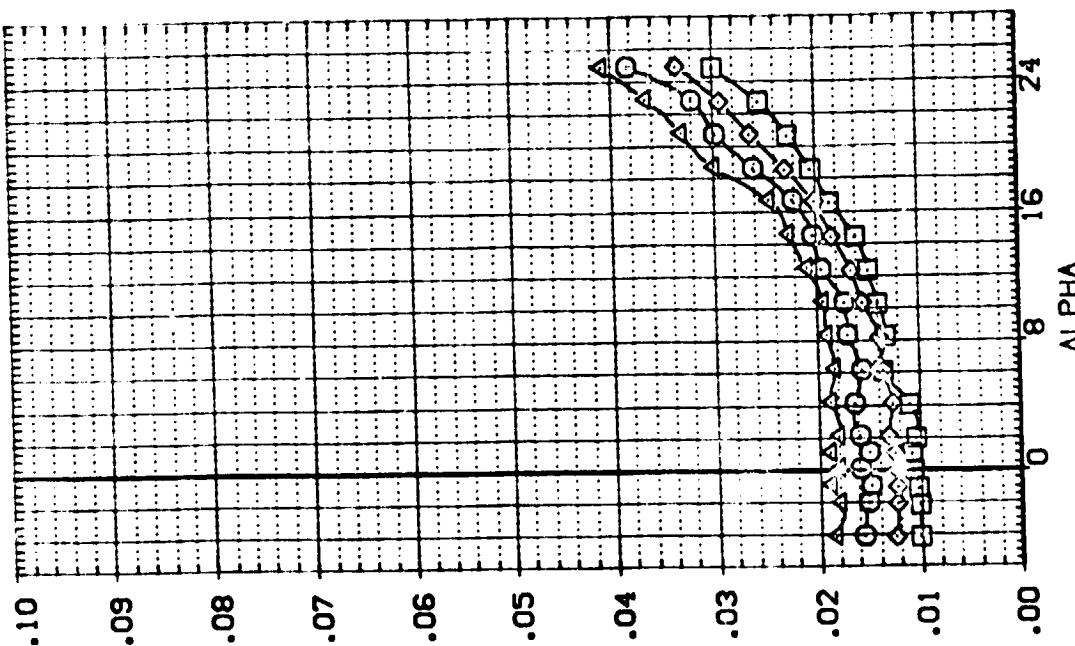
PAGE 27

DATA SET SYMBOL		CONF.URATION		DESCRIPTION		REFERENCE INFORMATION		SCALE	
(A00049)	□	NR.701	.0405	028	8165507F	143	57E	18V5X10	1100ES
(A00048)	○	NR.701	.0405	028	8165507F	143	57E	18V5X10	1100ES
(A00041)	×	NR.701	.0405	028	8165507F	143	57E	18V5X10	1100ES
(A00040)	△	NR.701	.0405	028	8165507F	143	57E	18V5X10	1100ES



ELEVON EFFECTIVENESS, ABES MOVED AFT .10( NACELLE LENGTH)(4 NACELLES)

(A)MACH = .20



DATA SET SYMBOL  
 (AD-049)  
 (AD-048)  
 (AD-041)  
 (AD-040)

CONFIGURATION DESCRIPTION  
 NR.701.0405 D23 B16C507F143487E18VX10  
 NR.701.0405 D23 B16C507F143487E18VX10  
 NR.701.0405 D23 B16C507F143487E18VX10  
 NR.701.0405 D23 B16C507F143487E18VX10

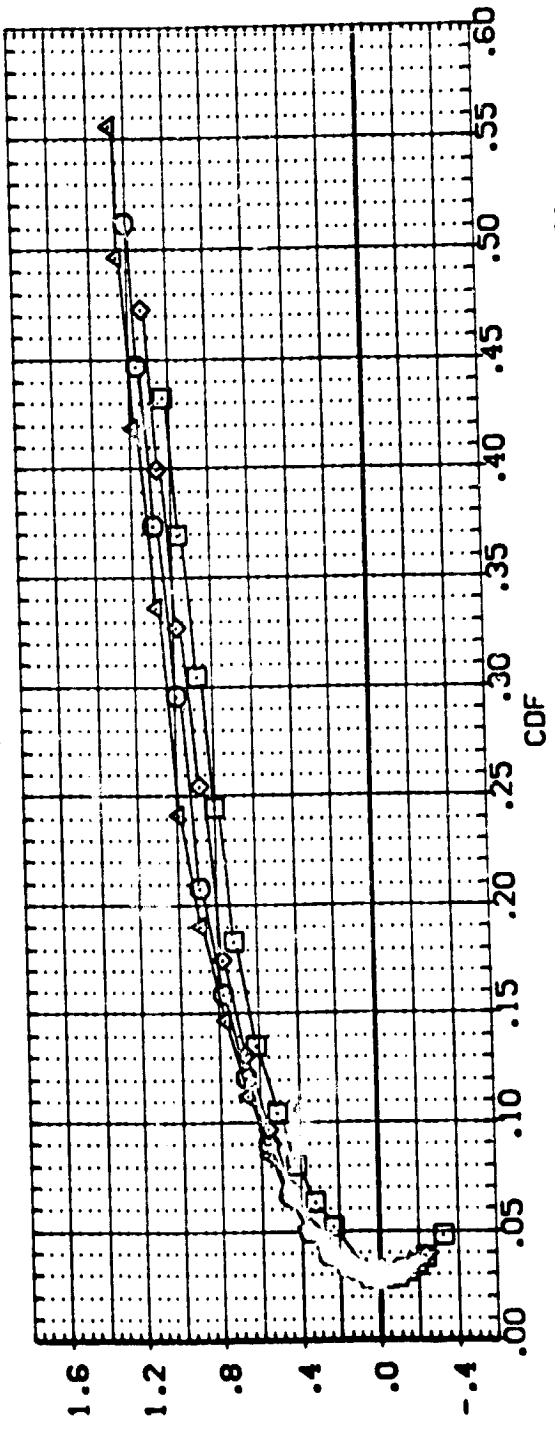
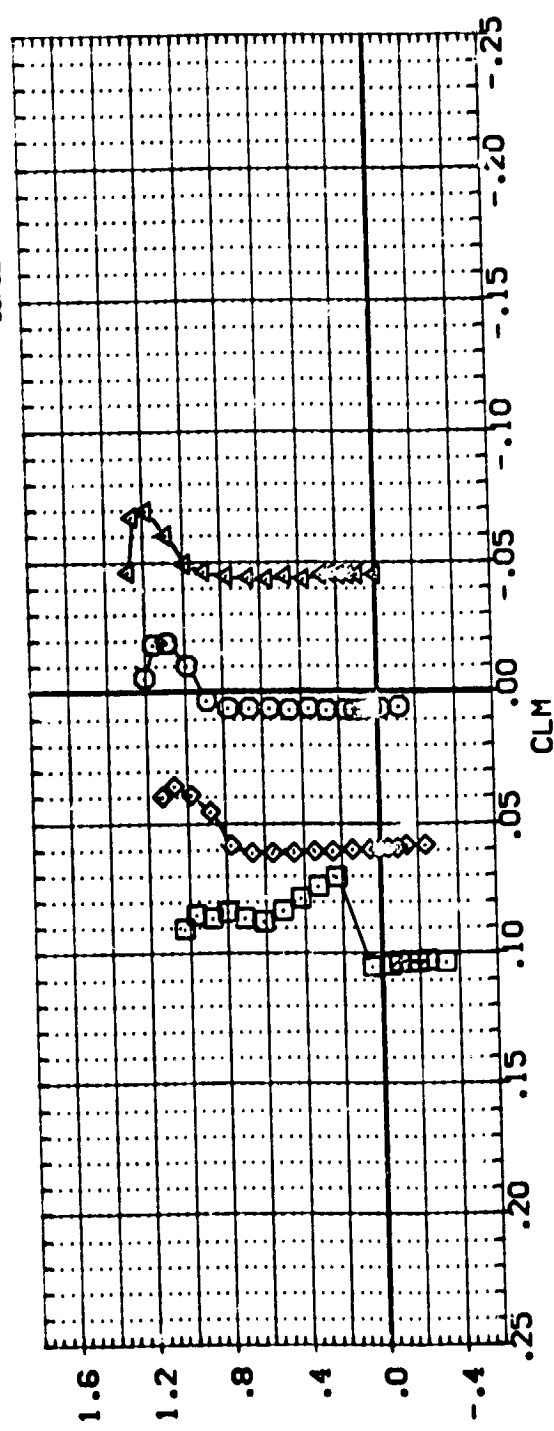
ELEVCH  
 -10.000  
 -5.000  
 .000  
 5.000

WACAL  
 .100  
 .100  
 .100

LIP

8. PLAP

REFERENCE INFORMATION  
 SREF 4.4119 50. FT.  
 LREF 19.2333 INCHES  
 BREF 37.5319 INCHES  
 XREF 43.5674 INCHES  
 YREF .0000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405



ELEVON EFFECTIVENESS, ABES MOVED AFT .10( NACELLE LENGTH)(4 NACELLES)

(A)MACH = .20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

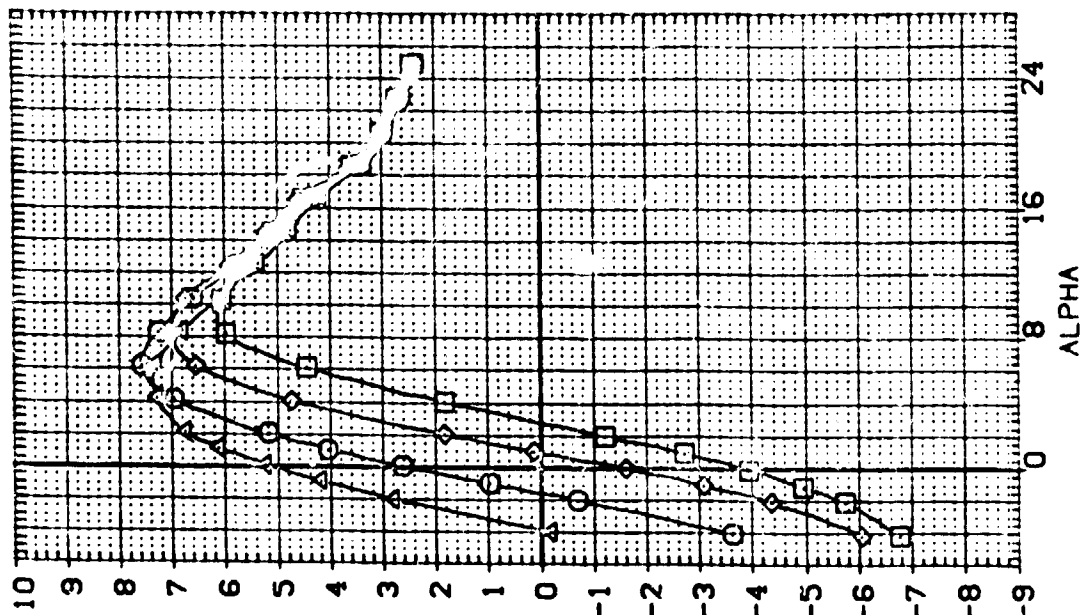
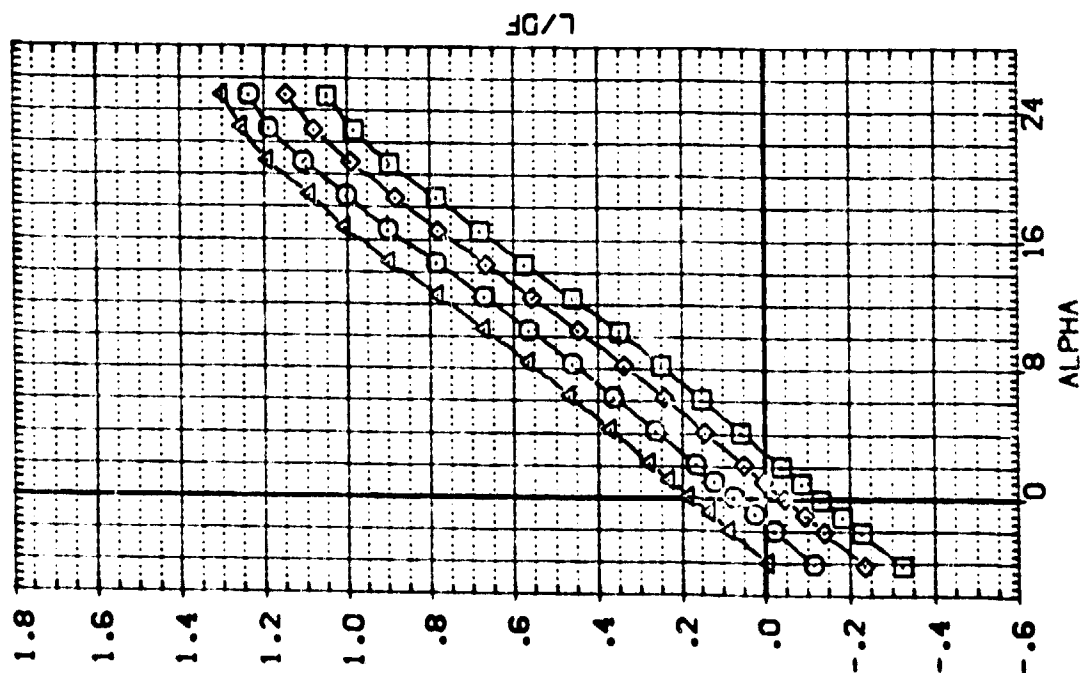
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(AD-081)	NR.701.0405 003 B18C507F143787E18VX10
(AD-080)	NR.701.0405 008 B18C507F143787E18VX10
(AD-087)	NR.701.0405 003 B18C507F143787E18VX10
(AD-078)	NR.701.0405 003 B18C507F143787E18VX10

ELEVON

ELEVON	NACM/L	LIP	9. PLAP
-10.000	.250	4.000	-19.000
-5.000	.250	4.000	-18.000
.000	.250	4.000	-19.000
5.000	.250	4.000	-18.000

REFERENCE INFORMATION

REFERENCE INFORMATION
SO. FT.
19.2558
37.8013
43.5574
16.0000
16.2000
SCALE
.0405



ELEVON EFFECTIVENESS. INBD ABES MOVED FWD. OUTBD AFT .25( NACELLE LENGTH(4 NAC)

(A)MACH = .20

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

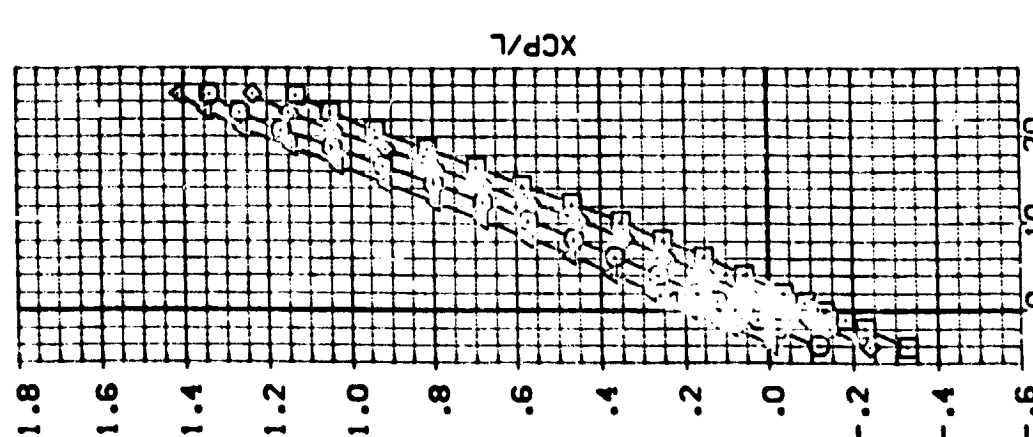
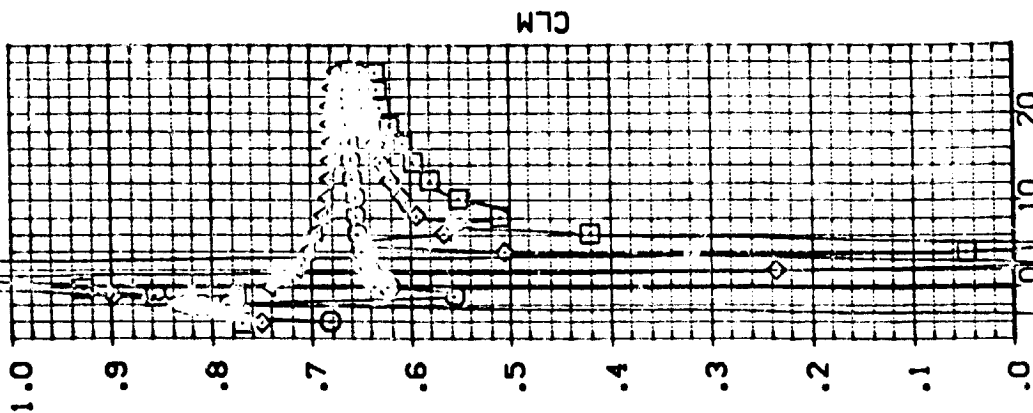
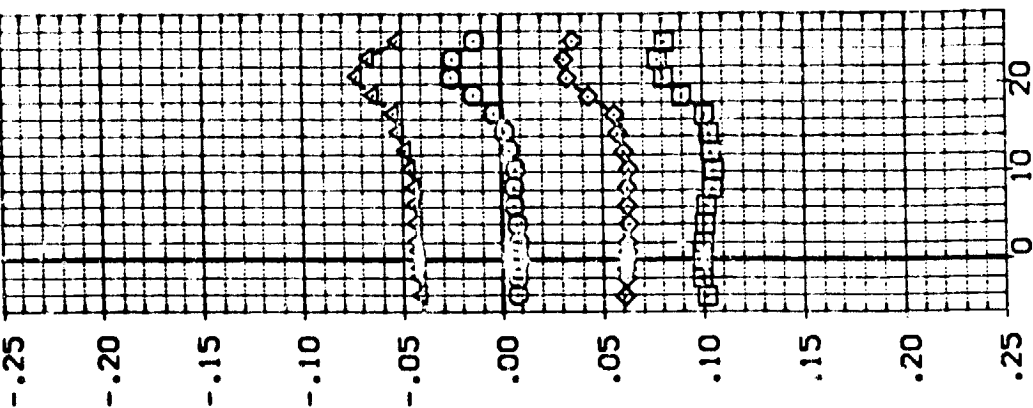
(AD-081)	NR.701.0405	088	B16C507E	13.687E	18VSX10
(AD-080)	NR.701.0405	088	B16C507E	13.687E	18VSX10
(AD-087)	NR.701.0405	088	B16C507E	13.687E	18VSX10
(AD-078)	NR.701.0405	088	B16C507E	13.687E	18VSX10

ELEVON NACVAL LIP B-FLAP

-10.000	4.000	-18.000
-5.000	4.000	-18.000
0.000	4.000	-18.000
5.000	4.000	-18.000

REFERENCE INFORMATION

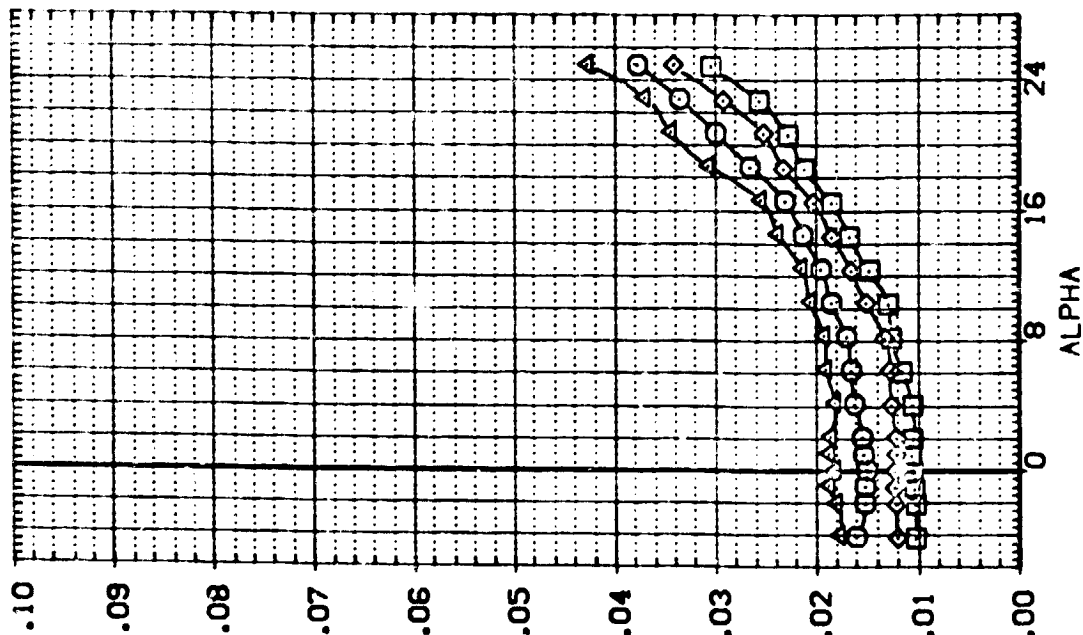
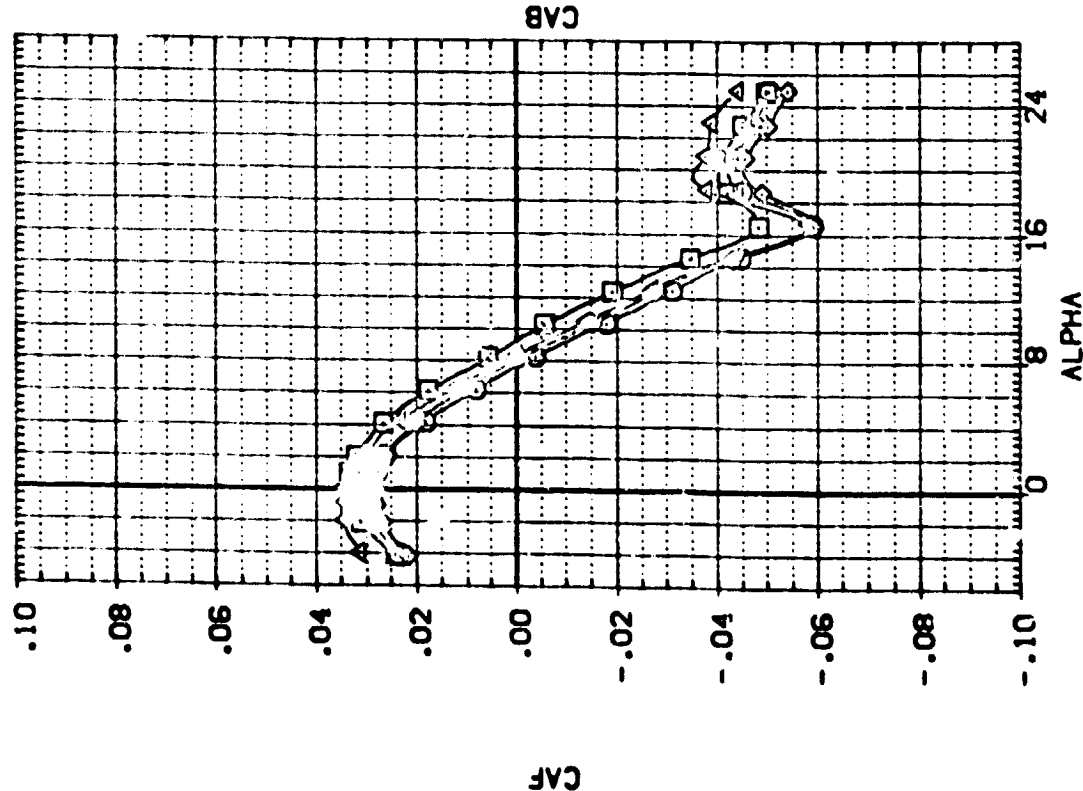
SREF	4.4119	50. FT.
LREF	15.2628	INCHES
BREF	37.9313	INCHES
YREF	43.5974	INCHES
ZREF	0.0000	INCHES
SCALE	16.2000	INCHES
SCALE	.0405	INCHES



ELEVON EFFECTIVENESS. IN80 ABES MOVED FWD. OUT80 AFT .250 NACELLE LENGTH(4 NAC)

DATA SET SYMBOL CONVIGURATION DESCRIPTION  
 (A) 081 ) [ ] NR.701.0405 ORB B16C507F14347E1375X10  
 (A) 080 ) [ ] NR.701.0405 ORB B16C507F14347E1375X10  
 (A) 087 ) [ ] NR.701.0405 ORB B16C507F14347E1375X10  
 (A) 078 ) [ ] NR.701.0405 ORB B16C507F14347E1375X10

ELEVON NACVAL LIP S/LAP REFERENCE INFORMATION  
 -10.000 .250 4.000 -19.000 SREF 4.4119 50.471  
 -5.000 .250 4.000 -18.000 LREF 19.2999 100.000  
 .000 .250 4.000 -18.000 DREF 37.9348 100.000  
 5.000 .250 4.000 -18.000 TRFP 43.3774 100.000  
 ZTRP 16.2000 100.000  
 SCALE .0405 INCHES

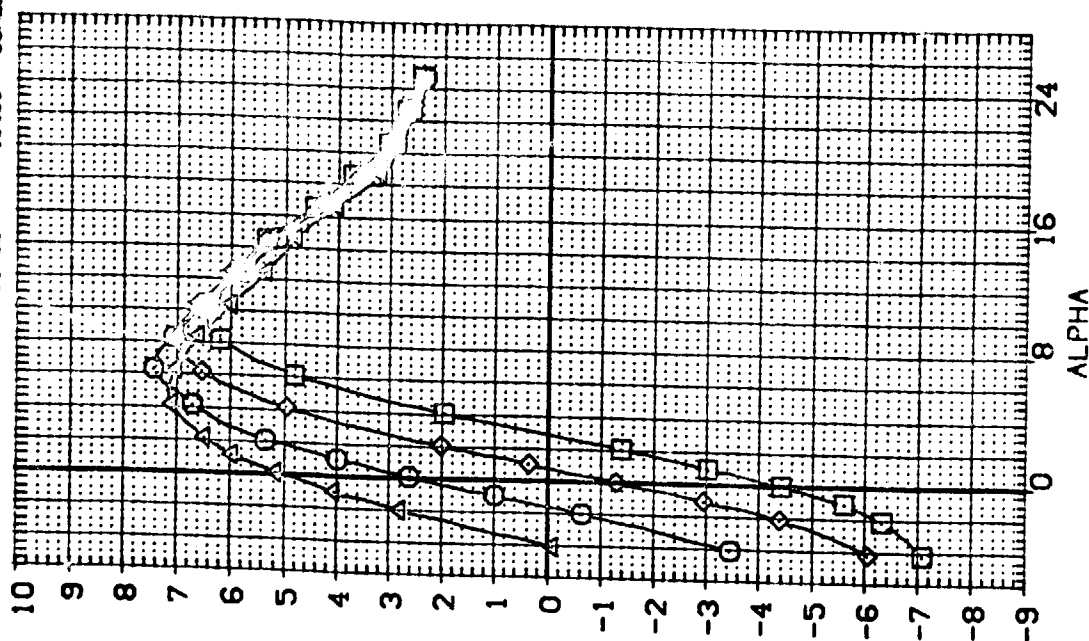
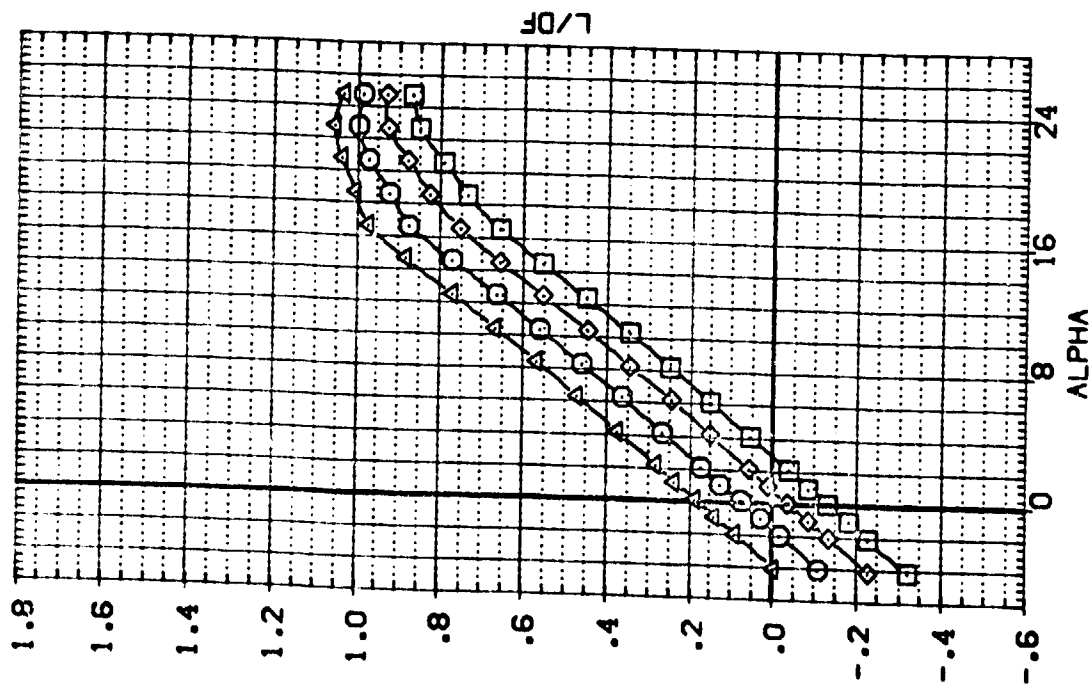


ELEVON EFFECTIVENESS, INBD ABES MOVED FWD. OUTBD AFT .250 NACELLE LENGTH(4 NAC)  
 (A) MACH = .20



DATA SET 5002 CONFIGURATION DESCRIPTION  
 (ADM175) 18.701.0405 038 816507F14V07E13V0X10  
 (ADM172) 18.701.0405 038 816507F14V07E13V0X10  
 (ADM165) 18.701.0405 038 816507F14V07E13V0X10  
 (ADM174) 18.701.0405 038 816507F14V07E13V0X10

ELEVON NACVAL LIP B-FLAP REFERENCE INFORMATION  
 -10.000 .490 4.000 -18.000 SREF 4.4119 50. FT.  
 -5.000 .490 4.000 -18.000 LREF 19.2838 INCHES  
 .000 .490 4.000 -18.000 BREF 37.9349 INCHES  
 5.000 .490 4.000 -18.000 XREF 43.5574 INCHES  
 YREF 16.2000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405 SCALE



ELEVON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ARES

(A)MACH = .20

DATA SET SYMBOLS: □ ○ ×

DESCRIPTION: 818CSUT7144V87E18VSX10  
 818CSUT7144V87E18VSX10  
 818CSUT7144V87E18VSX10  
 818CSUT7144V87E18VSX10

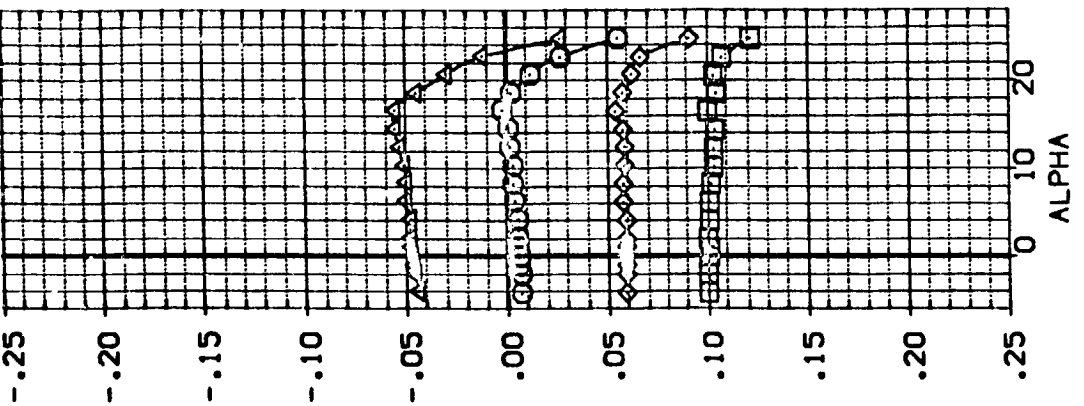
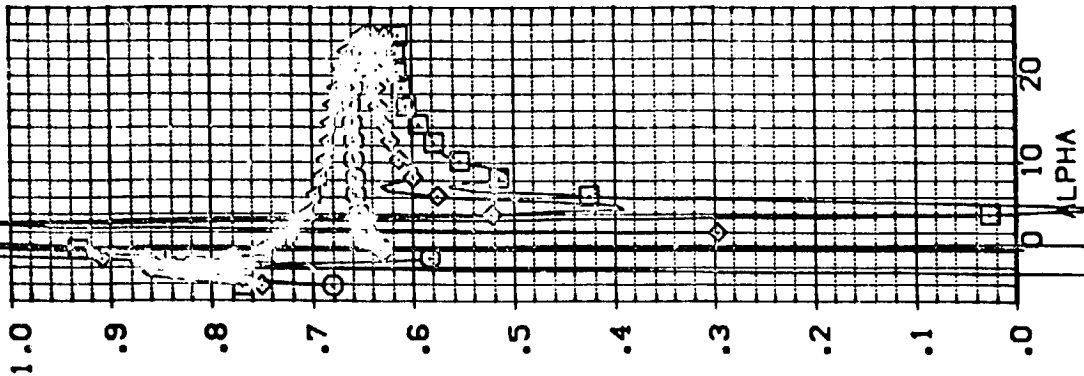
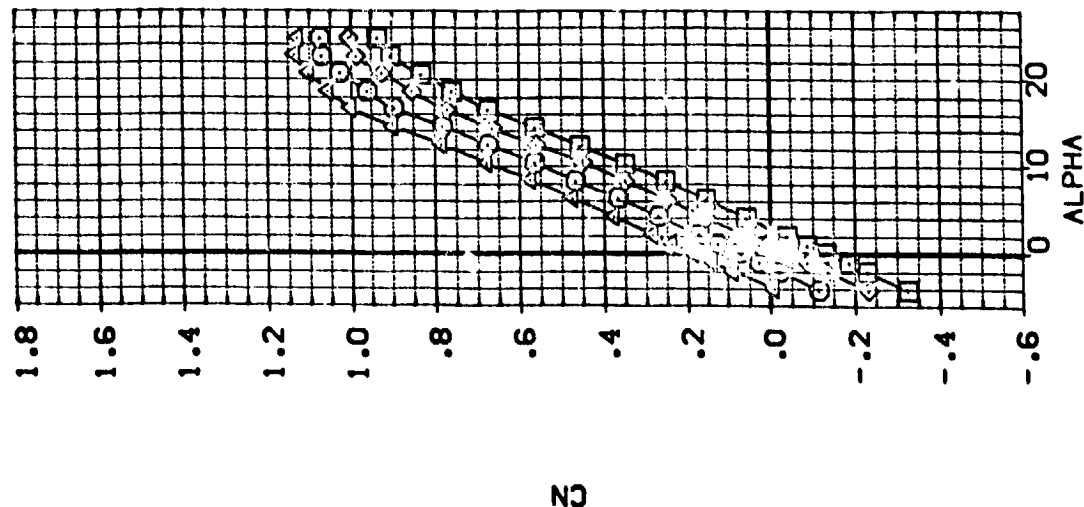
ELEVON: -10.000  
 -5.000  
 5.000

NUCLAL: .450  
 .450  
 .450

LIP: 4.000  
 4.000  
 4.000  
 4.000

8. PLAP: -18.000  
 -18.000  
 -18.000  
 -18.000

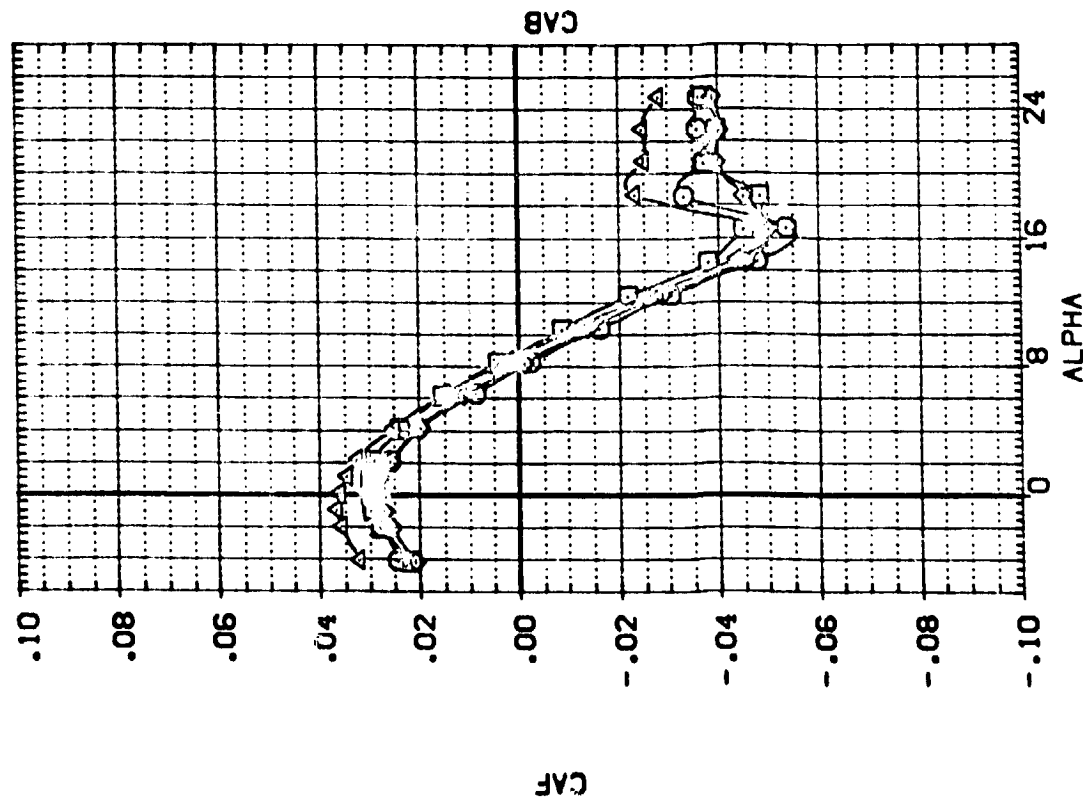
REFERENCE INFORMATION: SREF: 4.4119 52. FT.  
 LREF: 19.2939 IN-ES  
 BREF: 37.9349 IN-ES  
 XREF: 43.2974 IN-ES  
 YREF: .0000 IN-ES  
 ZREF: 16.2000 IN-ES  
 SCALE: .0405



ELEVON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

(M)MACH = .20

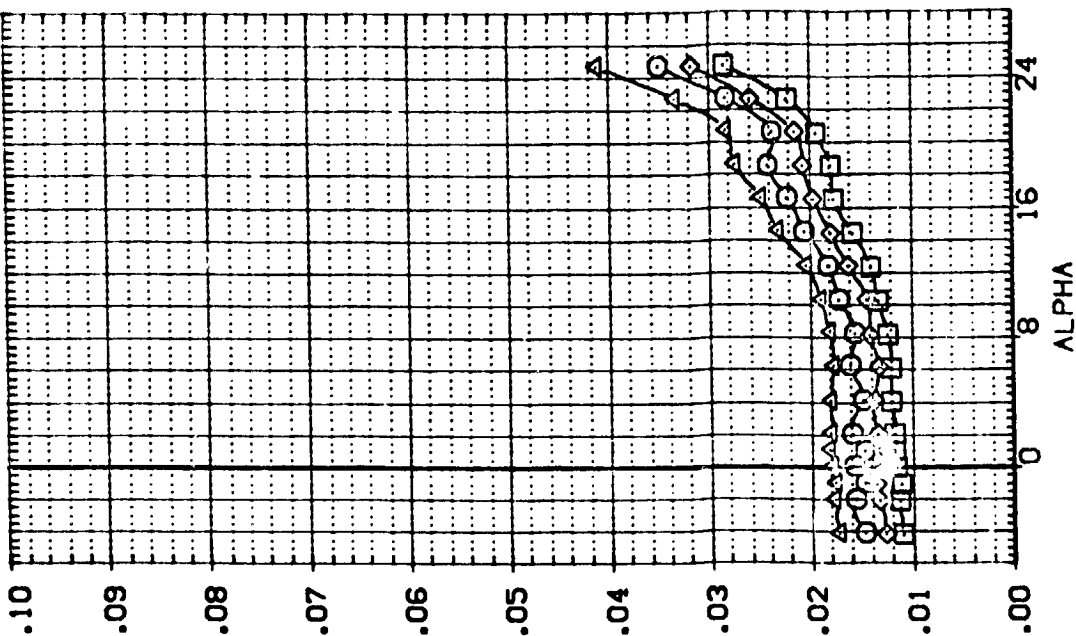
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
(ADN175)	□	NR 701.0405	DB8 B16C507F14V87E18V5X10	SREF	4.4119 SQ.FT.
(ADN172)	○	NR 701.0405	DB8 B16C507F14V87E18V5X10	LREF	19.2533 INCHES
(ADN173)	×	NR 701.0405	DB8 B16C507F14V87E18V5X10	CREF	37.3743 INCHES
(ADN174)	◇	NR 701.0405	DB8 B16C507F14V87E18V5X10	XTRP	43.5974 INCHES
				YTRP	.0000 INCHES
				ZTRP	16.2000 INCHES
				SCALE	.0405



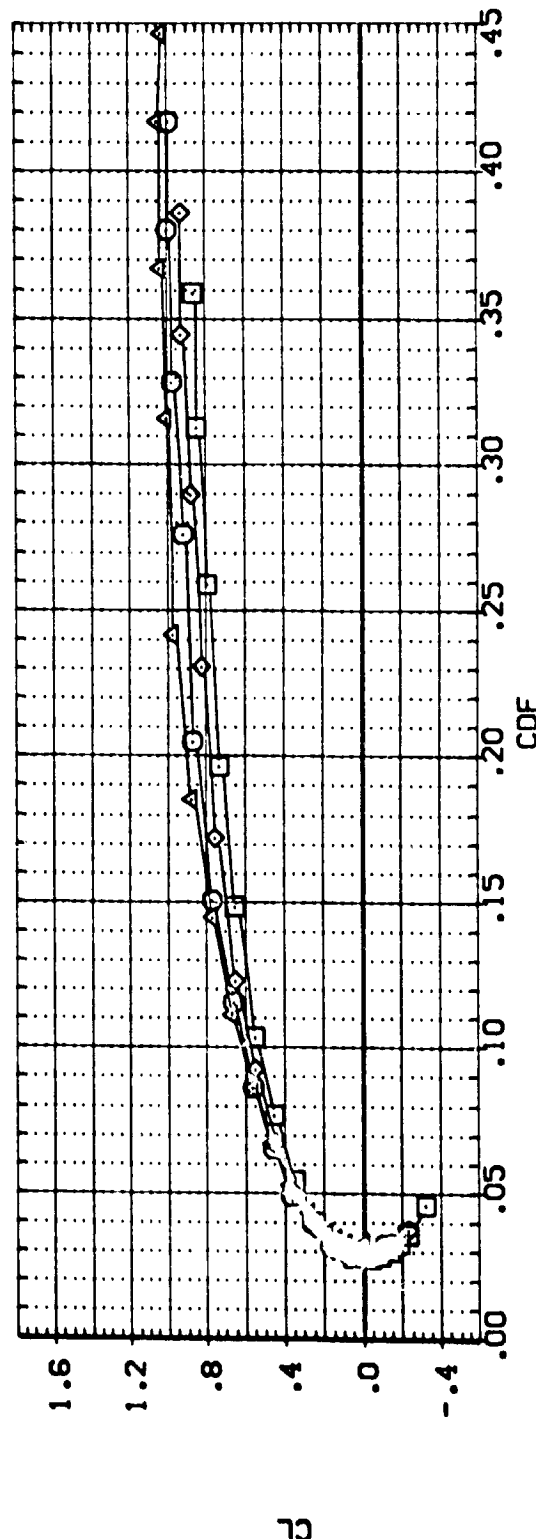
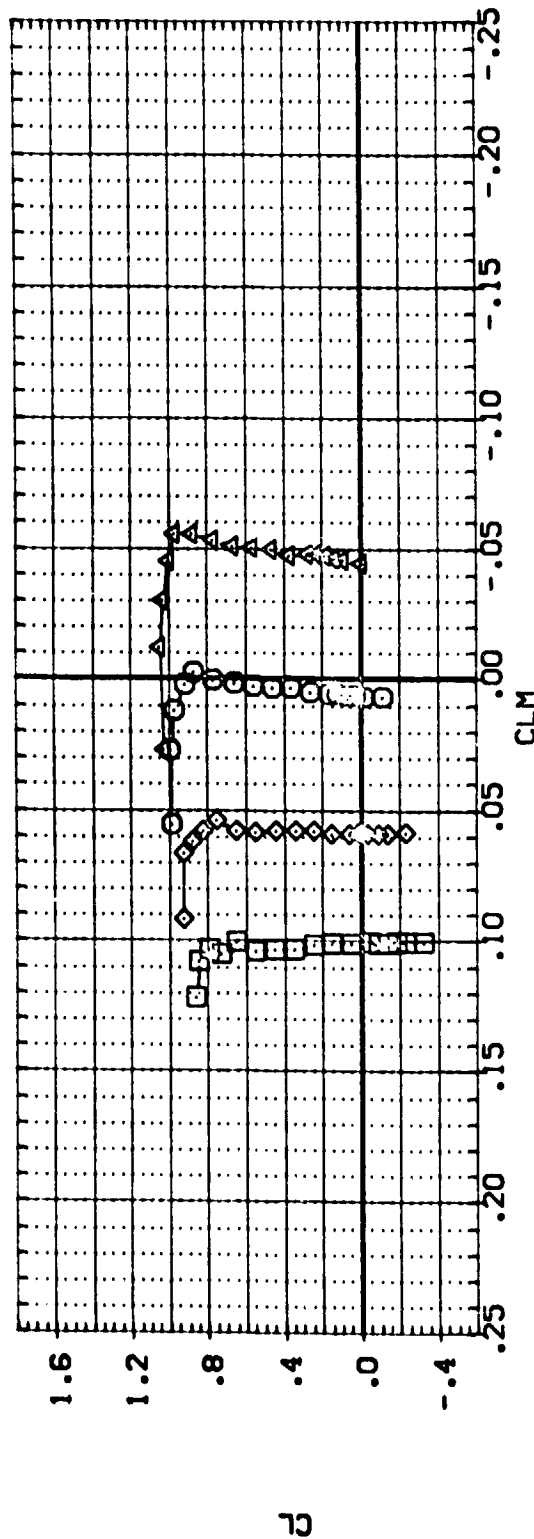
ELEVON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

ELEVON		MACVL		LIP		B.FLAP		REFERENCE INFORMATION	
-10.000	.490	4.000	-18.000	SREF	4.4119	SQ.FT.			
-5.000	.490	4.000	-18.000	LREF	19.2533	INCHES			
.000	.490	4.000	-18.000	CREF	37.3743	INCHES			
5.000	.490	4.000	-18.000	XTRP	43.5974	INCHES			
				YTRP	.0000	INCHES			
				ZTRP	16.2000	INCHES			
				SCALE	.0405	SCALE			



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NACVL	LIP	B.FLAP	REFERENCE INFLUENCE	INFLUENCE
(ADN175)	NR 701.0405 033 8165307F 14487E 18V5X10	-10.000	.450	4.000	-18.000	SREF	50.FT.
(ADN172)	NR 701.0405 033 8165307F 14487E 18V5X10	-5.000	.450	4.000	-18.000	LREF	IN-ES
(ADN165)	NR 701.0405 033 8165307F 14487E 18V5X10	.000	.450	4.000	-18.000	BREF	IN-ES
(ADN174)	NR 701.0405 033 8165307F 14487E 18V5X10	5.000	.450	4.000	-18.000	YREF	IN-ES
						YREF	IN-ES
						ZREF	IN-ES
						SCALE	SCALE



ELEVON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

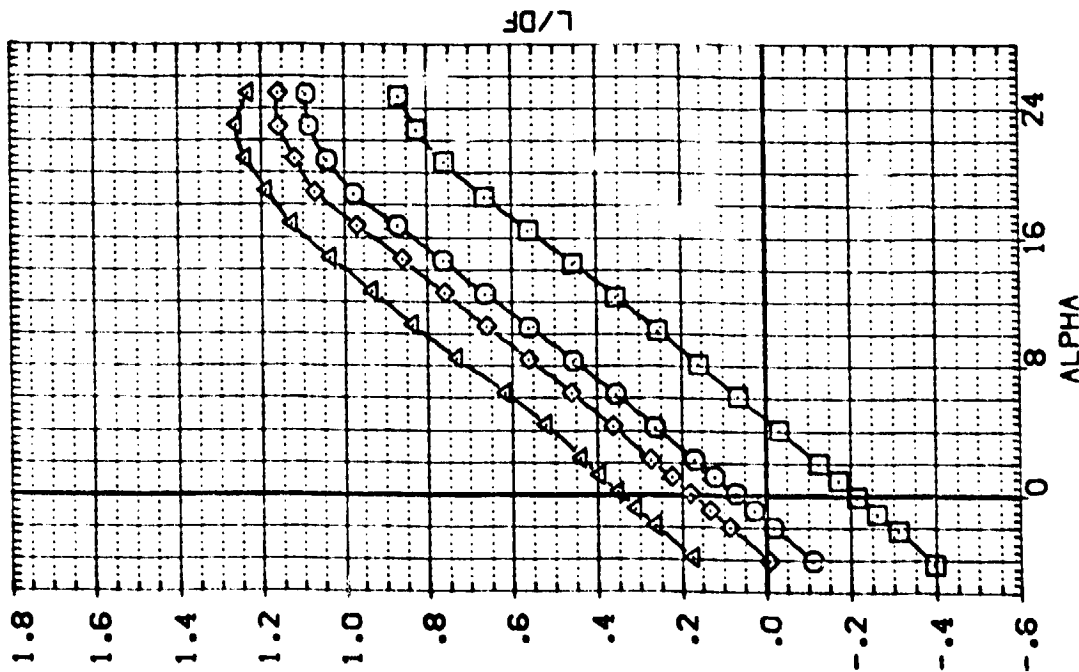
DATA SET SYMBOL CG-FIGURATION DESCRIPTION

[AD-G51] NR.701.0405 CR8 816CS07F 15G1287E18VSX10

[AD-G43] NR.701.0405 CR8 816CS07F 15G1287E18VSX10

[AD-G49] NR.701.0405 CR8 816CS07F 15G1287E18VSX10

[AD-G50] NR.701.0405 CR8 816CS07F 15G1287E18VSX10



ELEVON

-15.000

.000

.000

5.000

15.000

MACUL

.000

.000

.000

.000

LIP

4.000

4.000

4.000

4.000

B-FLAP

-18.000

-18.000

-18.000

-18.000

REFERENCE INFORMATION

SREF 4.4119 52.171

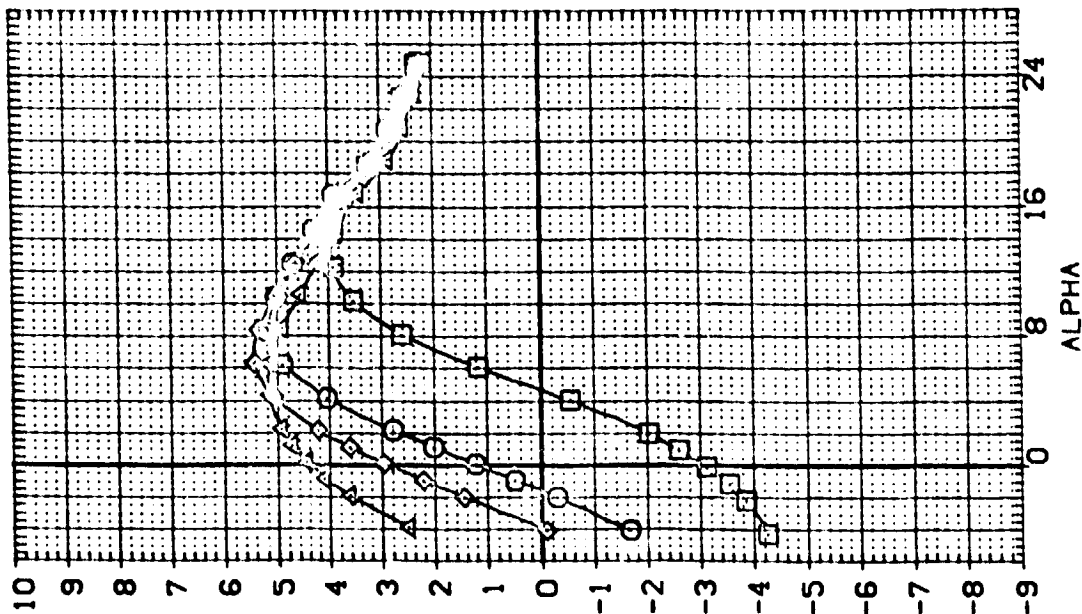
LREF 19.2303 170.000

BREF 27.9349 170.000

XREF 43.5374 170.000

ZREF 16.2000 170.000

SCALE .0405



ELEVON EFFECTIVENESS, BASELINE ABES LOCATION (6 NACELLES)

(A)MACH = .20



DATA SET SYMBOL  
 (AD-G51)  
 (AD-G43)  
 (AD-G49)  
 (AD-G50)

CONFIGURATION DESCRIPTION  
 NR.701.0405 DB8 B16C507F145G1287E18V5X10  
 NR.701.0405 DB8 B16C507F145G1287E18V5X10  
 NR.701.0405 DB8 B16C507F145G1287E18V5X10  
 NR.701.0405 DB8 B16C507F145G1287E18V5X10

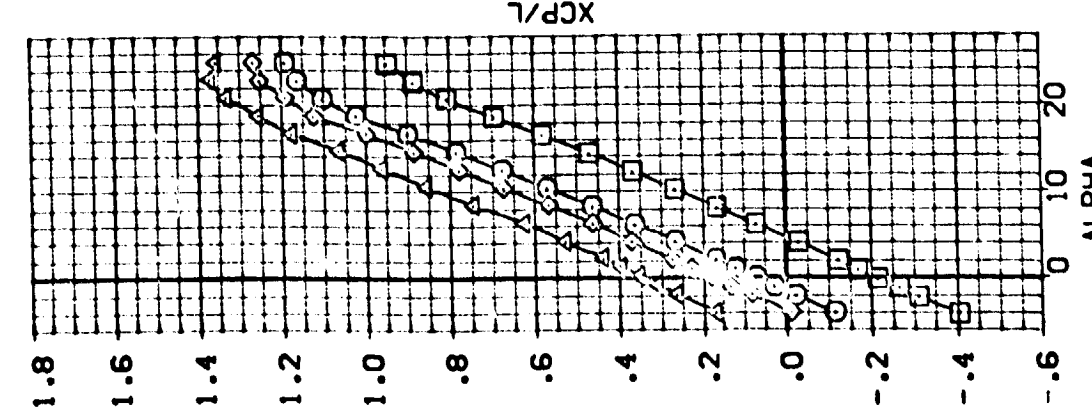
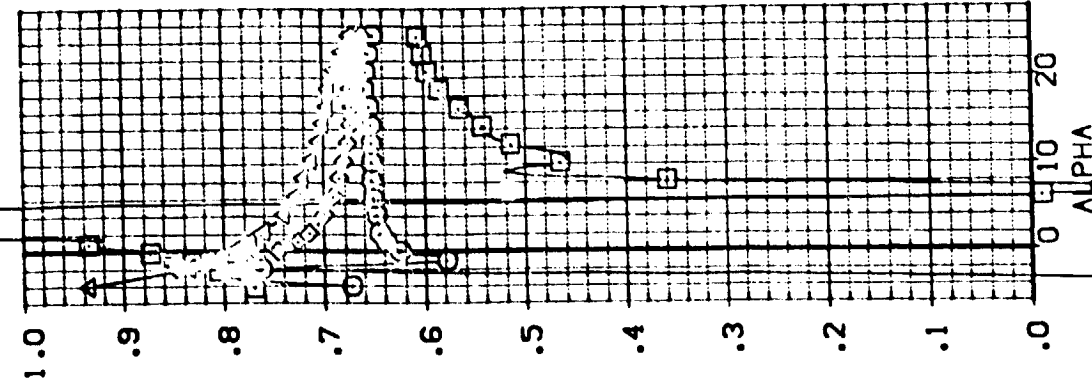
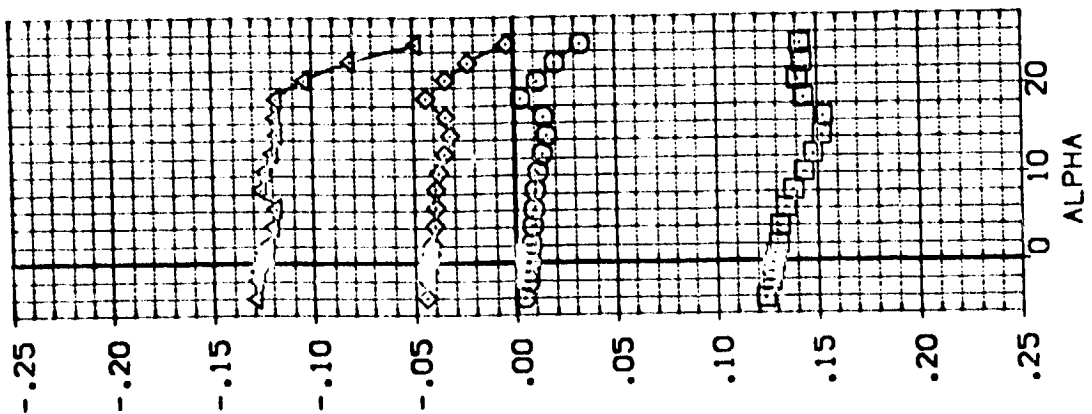
ELEVON  
 -15.000  
 5.000  
 15.000

NACAL  
 .000  
 .000  
 .000

LIP  
 4.000  
 4.000  
 4.000

B.P.L.P.  
 -18.000  
 -18.000  
 -18.000

REFERENCE INFORMATION  
 SREF 4.4119 90.FT.  
 LREF 19.2968 INCHES  
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 XREF 43.5874 INCHES  
 YREF 16.2000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405

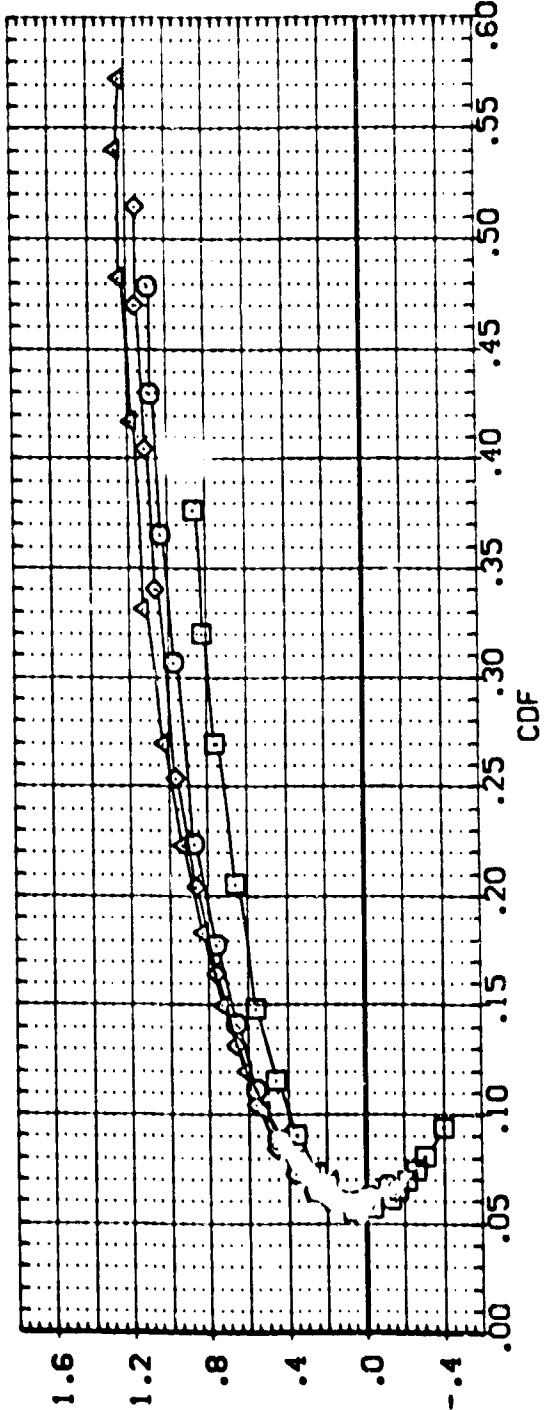
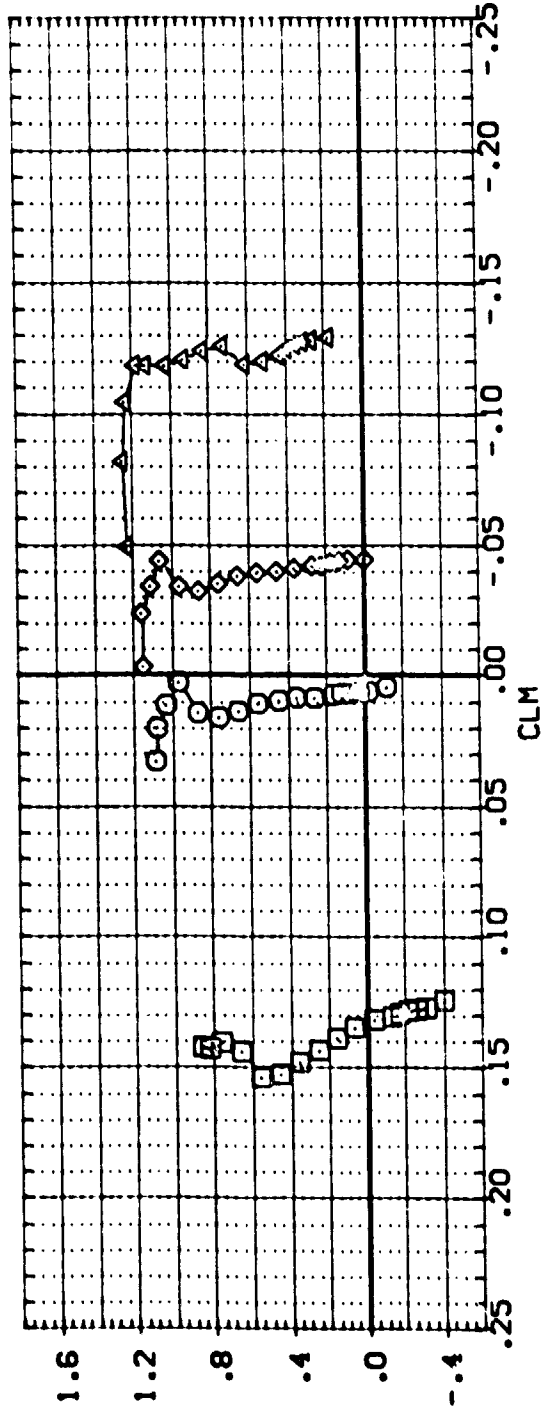


ELEVON EFFECTIVENESS, BASELINE ABES LOCATION (6 NACELLES)

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NACVAL	LIP	B. FLAP	REFERENCE INFORMATION
(ADG01)	NR.701.0405 0RB S16CS07F1J5G12V87E18V5X10	-15.000	.000	4.000	-18.000	SREF 4.4119 SQ.FT.
(ADG03)	NR.701.0405 0RB S16CS07F1J5G12V87E18V5X10	.000	.000	4.000	-18.000	LREF 19.2553 INO-ES
(ADG04)	NR.701.0405 0RB S16CS07F1J5G12V87E18V5X10	5.000	.000	4.000	-18.000	BREF 37.9349 INO-ES
(ADG05)	NR.701.0405 0RB S16CS07F1J5G12V87E18V5X10	15.000	.000	4.000	-18.000	YMRP 43.5574 INO-ES
						ZMRP .0000 INO-ES
						SCALE 16.2000 INO-ES

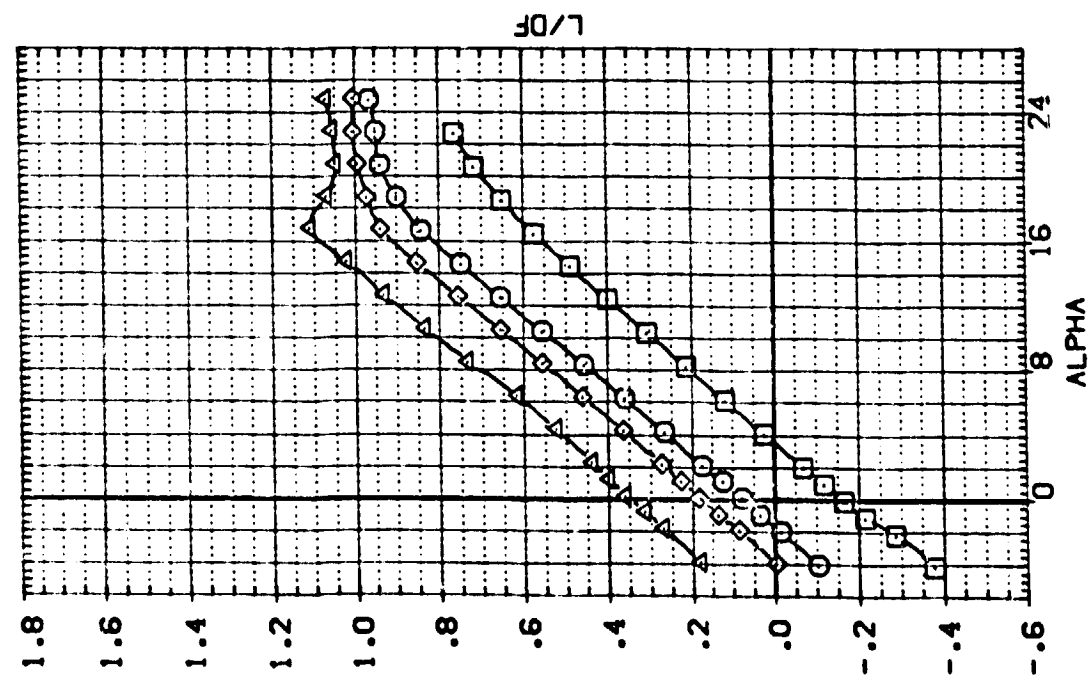
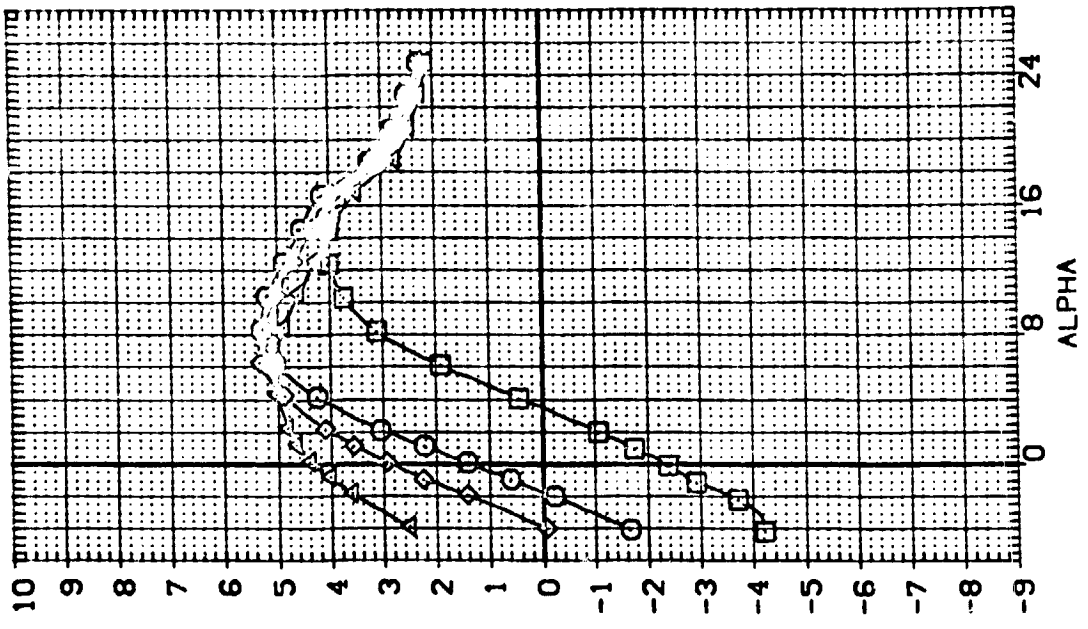


ELEVON EFFECTIVENESS, BASELINE ABES LOCATION (6 NACELLES)

(A)MACH = .20

ELEVON	MACAL	LIP	H, FLAP	REFERENCE	DESCRIPTION
-15.000	.450	4.000	-18.000	SREF	4.4119
.000	.450	4.000	-18.000	UREF	19.2969
5.000	.450	4.000	-18.000	BREF	37.9349
15.000	.450	4.000	-18.000	YREF	43.0000
				ZREF	16.2000
				SCALE	.0405

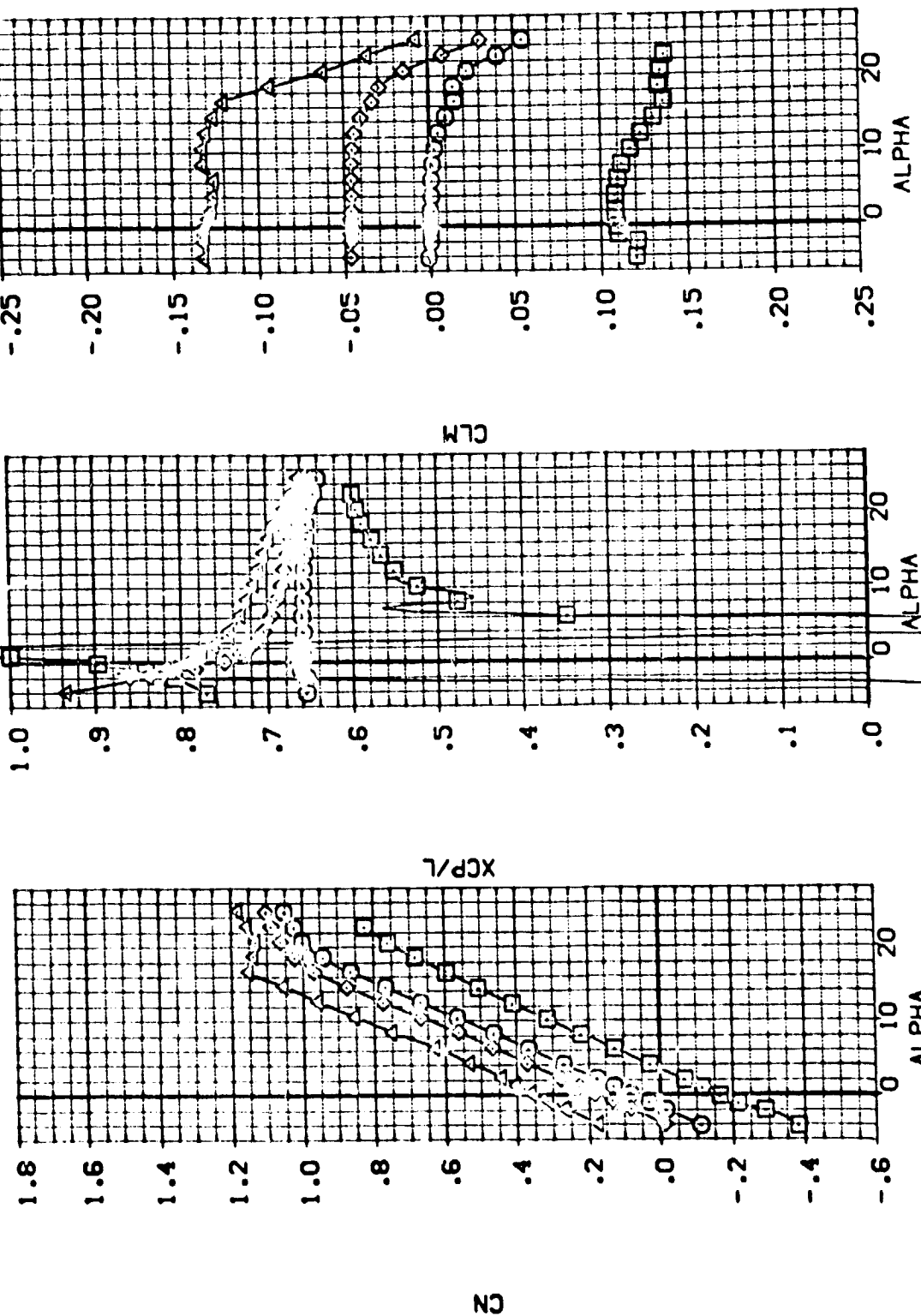
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(A0005)	N8.701.0405	Q38 B16C507F1.6612V87E18V5X10
(A0007)	N8.701.0405	Q38 B16C507F1.6612V87E18V5X10
(A0009)	N8.701.0405	Q38 B16C507F1.6612V87E18V5X10
(A0011)	N8.701.0405	Q38 B16C507F1.6612V87E18V5X10



ELEVON EFFECTIVENESS, 2 FUSELAGE AND 4 WING ABES

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	MACAL	LIP	B. FLAP	REFERENCE INFORMATION
(AD-055)	NR 701.0405 098 B16C507F1J6G12V87E18V5X10	-15.000	.450	4.000	-18.000	SREF 4.4119 50. FT.
(AD-057)	NR 701.0405 098 B16C507F1J6G12V87E18V5X10	0.000	.450	4.000	-18.000	LREF 19.2339 INC-ES
(AD-058)	NR 701.0405 098 B16C507F1J6G12V87E18V5X10	5.000	.450	4.000	-18.000	YREF 37.5319 INC-ES
(AD-064)	NR 701.0405 098 B16C507F1J6G12V87E18V5X10	15.000	.450	4.000	-18.000	XREF 43.5574 INC-ES
						YREF 0.0000 INC-ES
						ZREF 16.2000 INC-ES
						SCALE .0405 SCALE



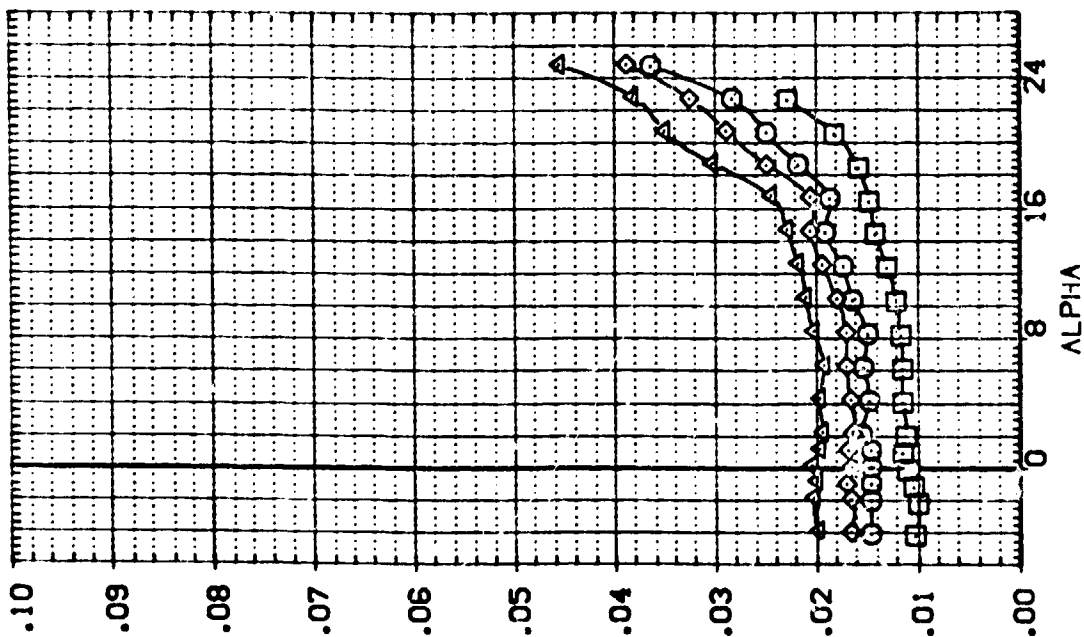
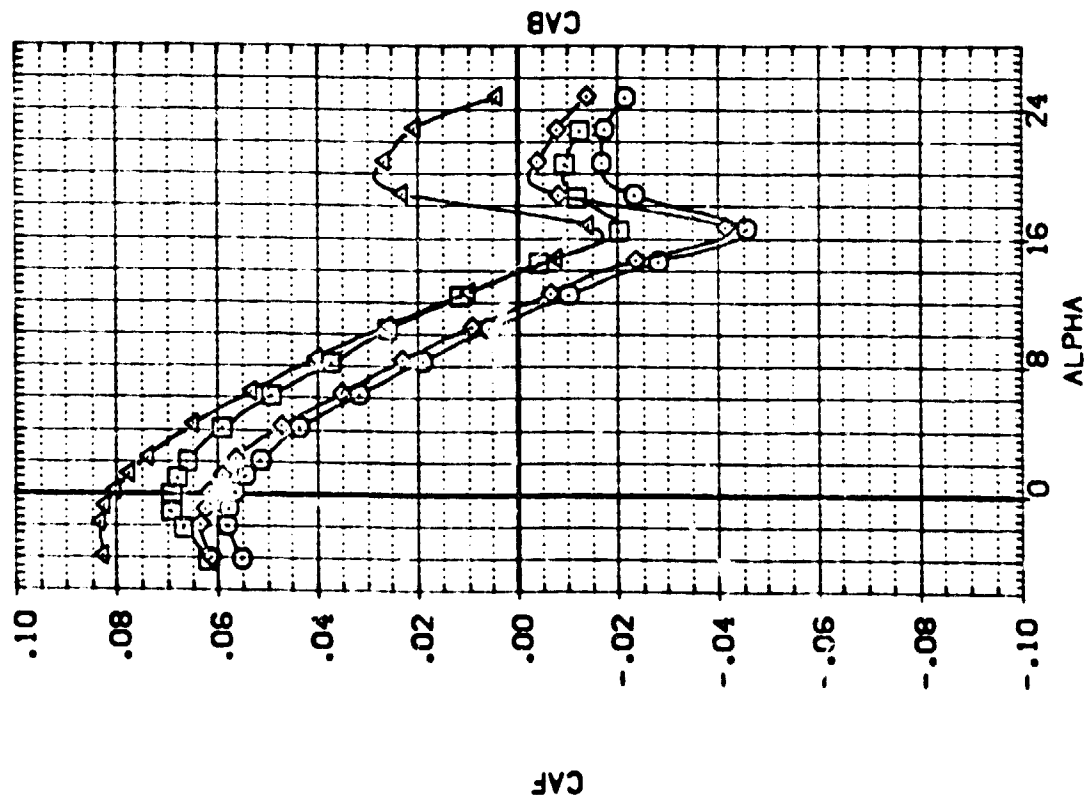
ELEVON EFFECTIVENESS, 2 FUSELAGE AND 4 WING ABES

(A)MACH = .20

DATA SET 01000		CONFIGURATION DESCRIPTION		REFERENCE INFORMATION	
(AD0005)	□	N6.701.0405	040	216.507F	1.0312037E18X10.0
(AD0057)	○	N6.701.0405	058	216.507F	1.0312037E18X10.0
(AD0066)	△	N6.701.0405	073	216.507F	1.0312037E18X10.0
(AD0064)	◇	N6.701.0405	073	216.507F	1.0312037E18X10.0

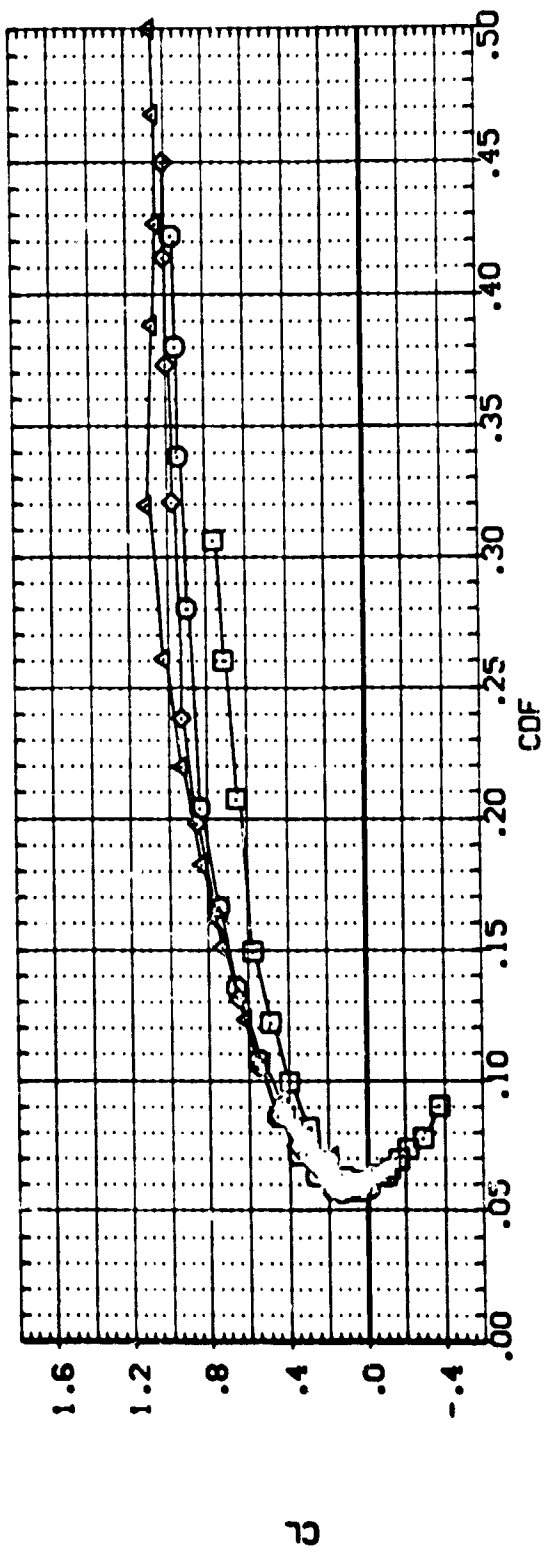
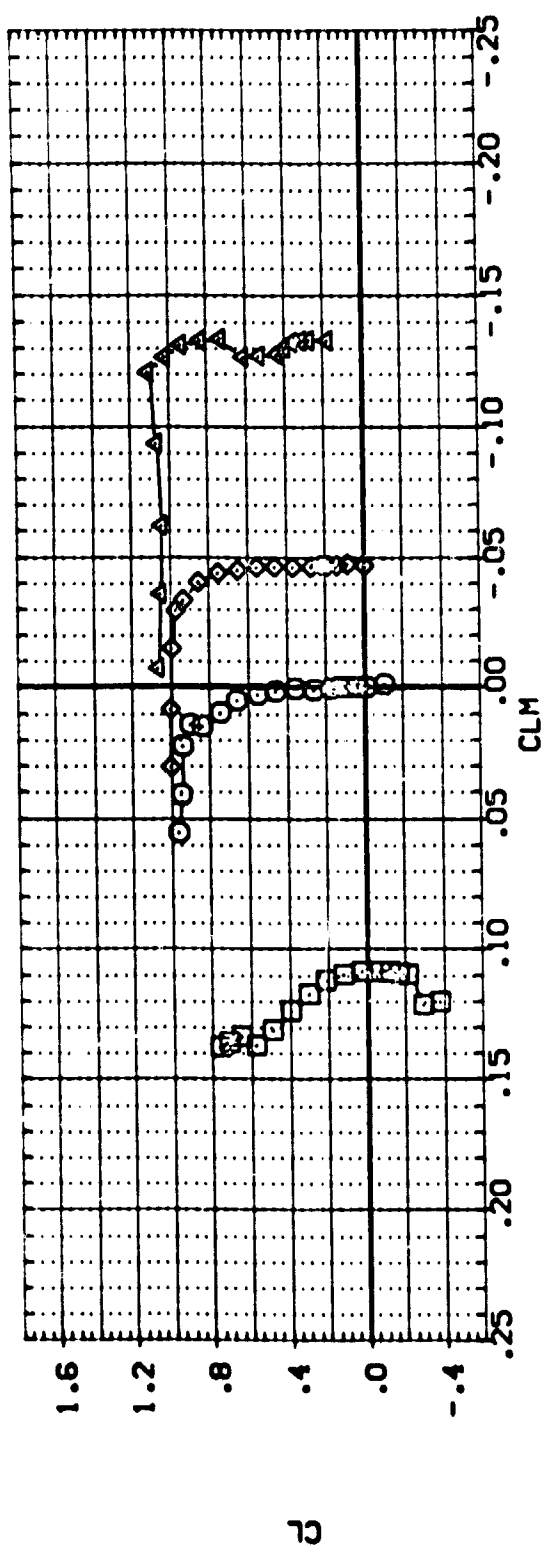
ELEVON	W/CAL	LIP	9.F/L/P	REFERENCE INFORMATION
-15.000	.480	4.000	-18.000	SREF 4.4119
0.0	.480	4.000	-18.000	UREF 19.2888
5.000	.480	4.000	-18.000	UREF 37.3349
15.000	.480	4.000	-18.000	UREF 43.5974
				YMRP .0000
				ZMRP 16.2000
				SCALE .0405



ELEVON EFFECTIVENESS, 2 FUSELAGE AND 4 WING ABES

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NACVL	LIP	B-FLAP	REFERENCE INSULATION	50.FT.
(AD065)	NR.701.0405 058 816C507F146G12V87E16V5X10	-15.000	.490	4.000	-18.000	SREF 4.4119	INCHES
(AD067)	NR.701.0405 053 816C507F146G12V87V5X10	.000	.490	4.000	-18.000	LREF 19.2859	INCHES
(AD066)	NR.701.0105 053 816C507F146G12V87E16V5X10	5.000	.490	4.000	-18.000	BREF 37.5343	INCHES
(AD064)	NR.701.0405 058 816C507F146G12V87E16V5X10	15.000	.490	4.000	-18.000	XTRP 43.5374	INCHES
						TRRP 16.2000	INCHES
						SCALE .0405	SCALE

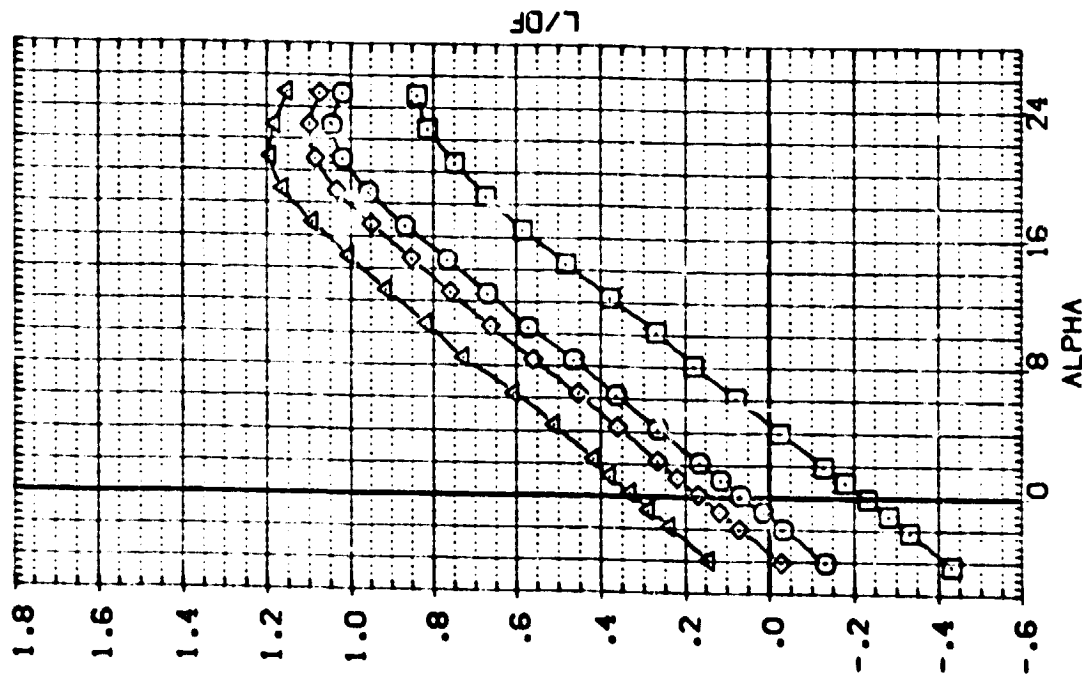


ELEVON EFFECTIVENESS, 2 FUSELAGE AND 4 WING ABES

(A)MACH = .20

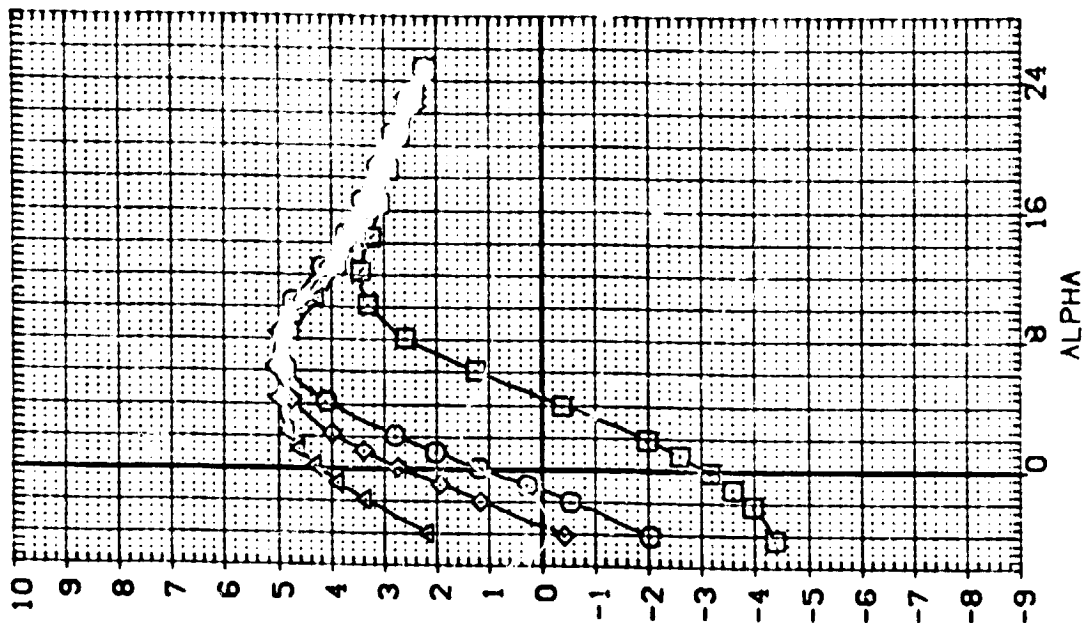
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ADG37)	MR.701.0405	038	B16C507F	1476	12.07E18	5X10
(ADG38)	MR.701.0405	038	B16C507F	1476	12.07E18	5X10
(ADG39)	MR.701.0405	038	B16C507F	1476	12.07E18	5X10
(ADG40)	MR.701.0405	038	B16C507F	1476	12.07E18	5X10



ELEVON

-15.000	.000	.000	4.000	-18.000	9.000	REF	4.4119	50.000
5.000	.000	.000	4.000	-18.000	9.000	LREF	19.2999	10.000
15.000	.000	.000	4.000	-18.000	9.000	XREF	47.3243	10.000
	.000	.000	4.000	-18.000	9.000	YREF	43.5774	10.000
						ZREF	16.2000	10.000
						SCALE	.0405	SCALE



ELEVON EFFECTIVENESS, 2 CLUSTERS OF 3 NACELLES EACH

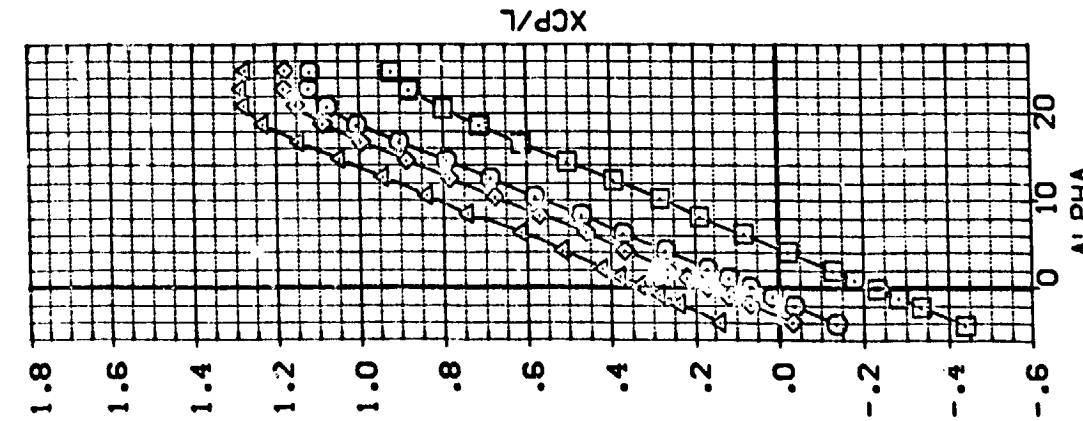
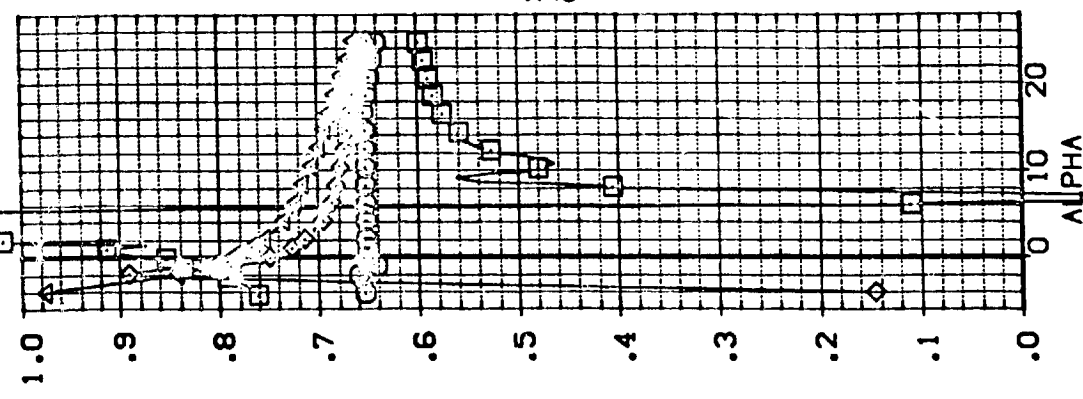
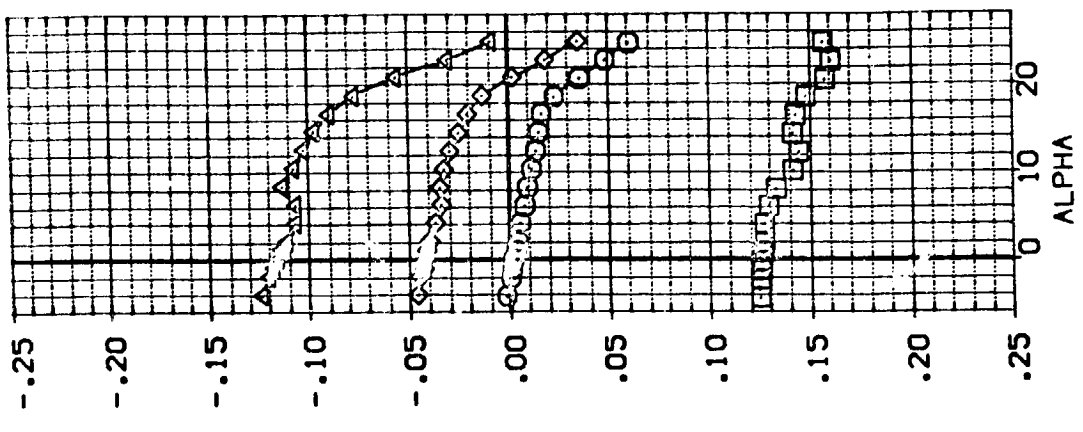
(A)MACH = .20



REFERENCE INFORMATION  
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 LREF 19.2388 INCHES  
 CREF 37.1343 INCHES  
 XREF 49.1374 INCHES  
 YREF 16.0000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405

FLAP 18.000  
 LIP 4.000  
 MAXCL 1.000  
 ELEVON 15.000  
 18.000  
 18.000  
 18.000  
 15.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (A) 0071 NR.701.0405 008 B18C507F147612467E16VSX10  
 (A) 0071 NR.701.0405 008 B18C507F147612467E16VSX10  
 (A) 0071 NR.701.0405 008 B18C507F147612467E16VSX10  
 (A) 0071 NR.701.0405 008 B18C507F147612467E16VSX10



ELEVON EFFECTIVENESS, 2 CLUSTERS OF 3 NAOELLES EACH  
 (A) MACH = .20

# DATA SET SYMBOL LONGITUDE DESCRIPTION

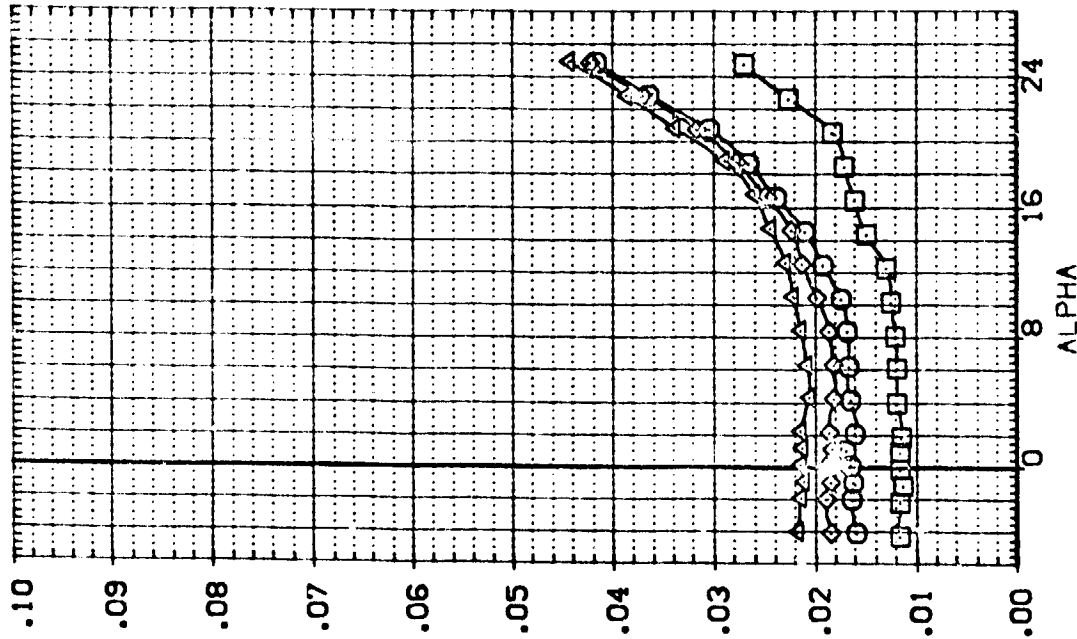
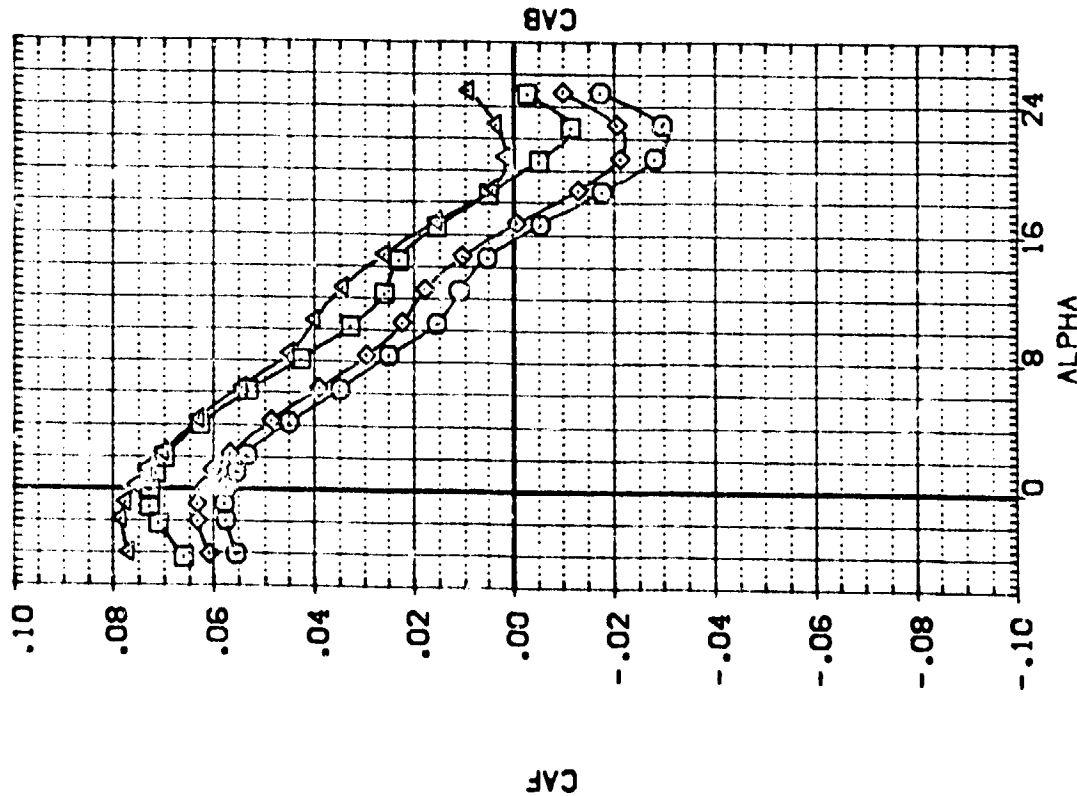
(ADN037) 1R.701.0405 0R8 816507F 14701 2487E18VX10  
 (ADN031) 1R.701.0405 0R8 816507F 14701 2487E18VX10  
 (ADN033) 1R.701.0403 0R8 816507F 14701 2487E18VX10  
 (ADN038) 1R.701.0405 0R8 816507F 14701 2487E18VX10

# ELEVON NACVAL LIP B/LAP

-15.000 .000 4.000 -19.000  
 .000 .000 4.000 -19.000  
 5.000 .000 4.000 -19.000  
 15.000 .000 4.000 -19.000

# REFERENCE INFORMATION

SKEF 4.4119 52.471  
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 BREF 37.5349 100.435  
 YREF 43.5374 100.435  
 ZREF 16.2000 100.435  
 SCALE .0405



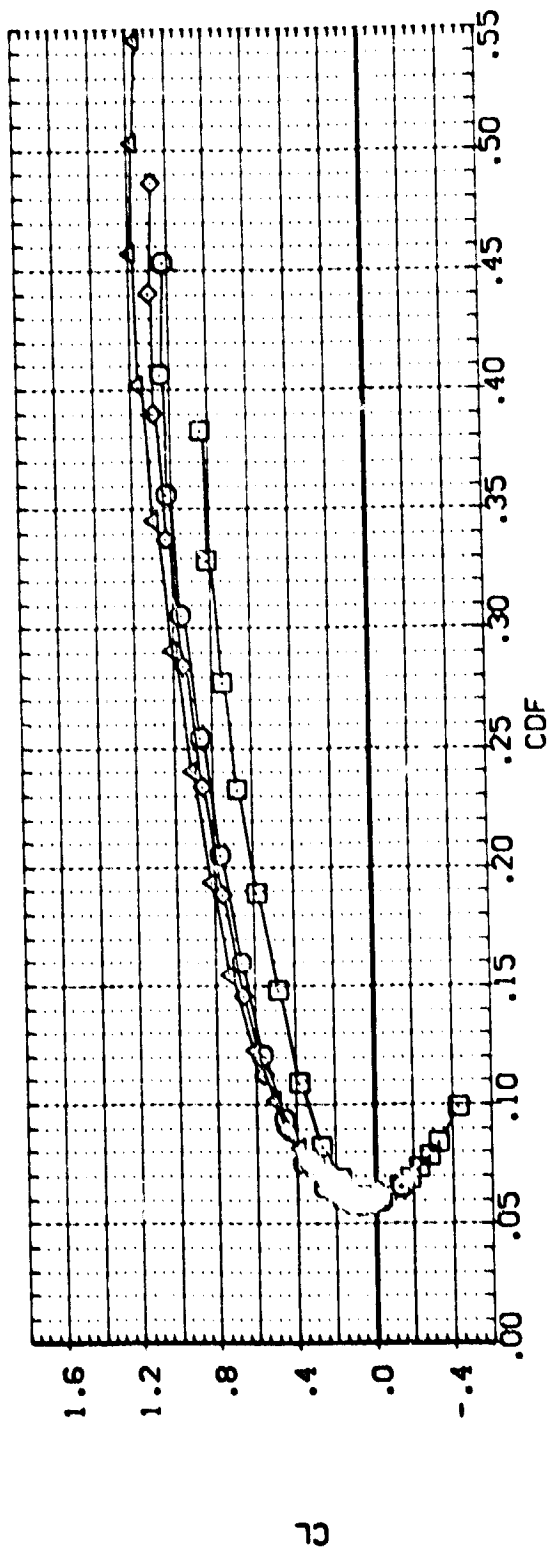
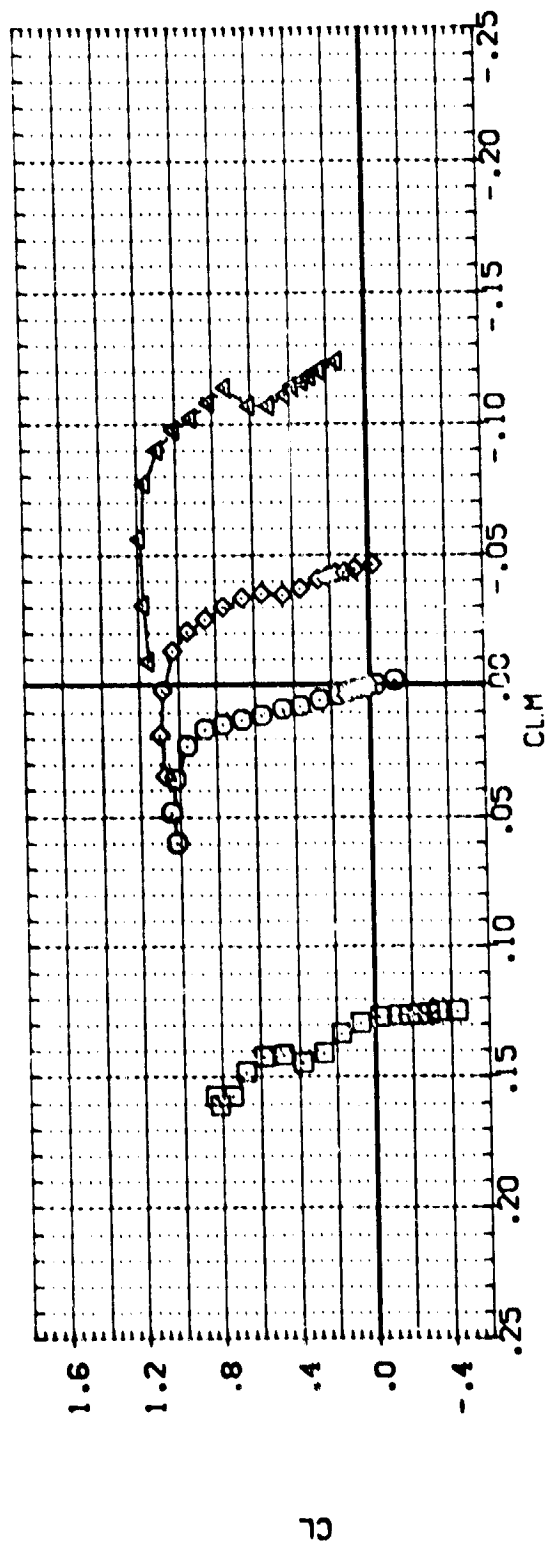
ELEVON EFFECTIVENESS, 2 CLUSTERS OF 3 NACELLES EACH

(A)MACH = .20

DATA SET SYMBOL [A2-007] [A2-008] [A2-009] [A2-010]

COMPUTATION DESCRIPTION  
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 18.701.0405 078 8:65307F:173:2487E:18/5X10  
 18.701.0405 078 8:65307F:173:2487E:18/5X10  
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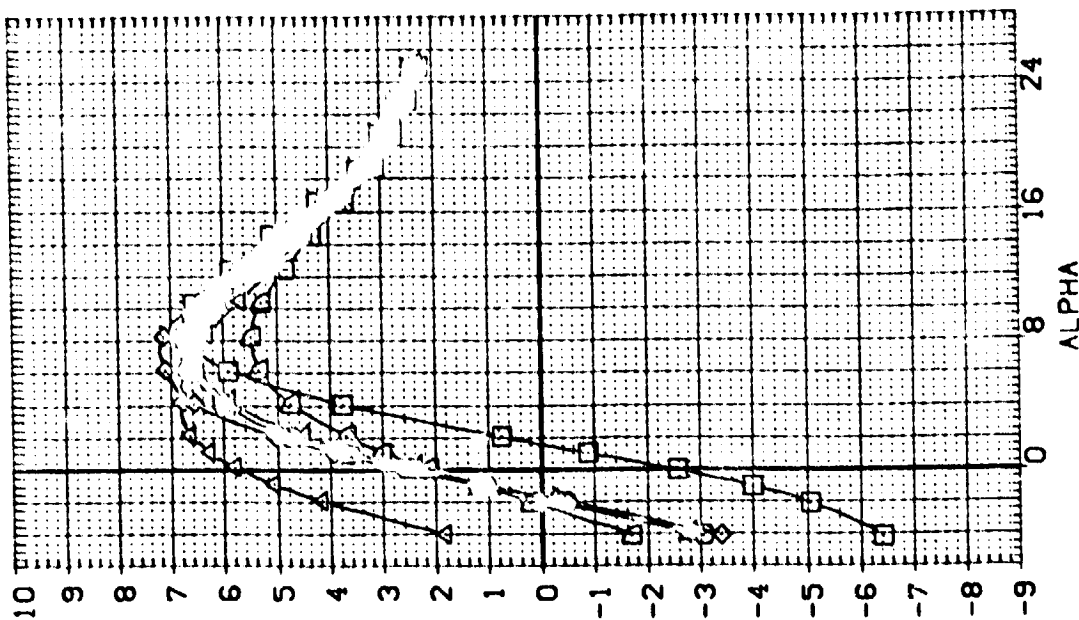
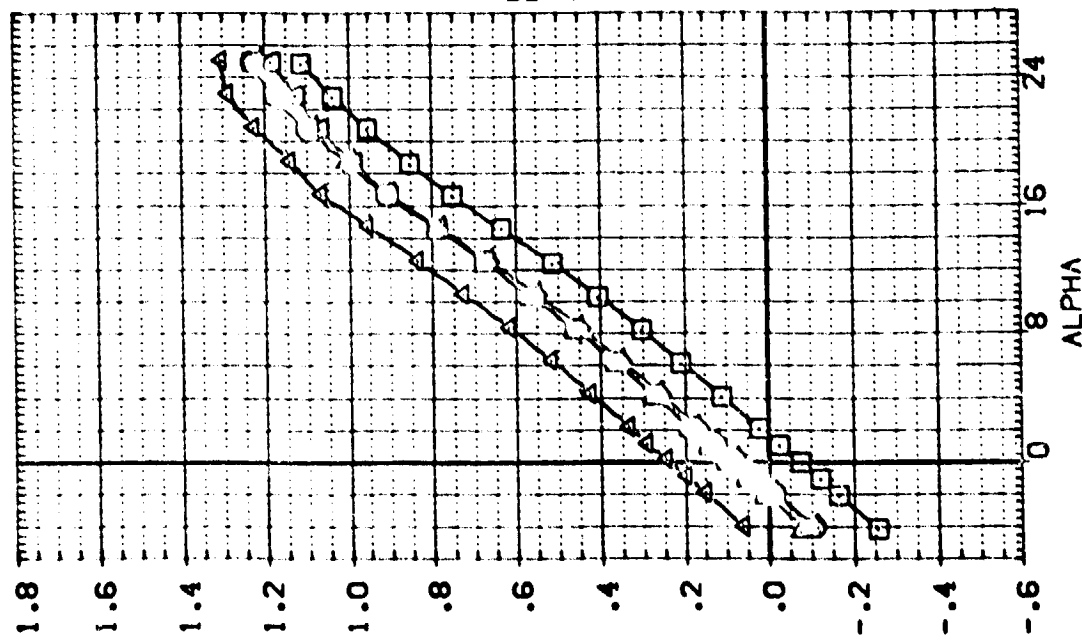
ELEVON MCDAL LIP 9.FUP REFERENCE INFORMATION  
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 5.000 .000 4.000 -18.000 LREF 19.2399 NO-ES  
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 15.000 .000 4.000 -18.000 YREF 43.5974 NO-ES  
 16.2000 NO-ES  
 16.2000 NO-ES  
 SCALE



ELEVON EFFECTIVENESS, 2 CLUSTERS OF 3 NACELLES EACH

CADMACH = .20

ELEVEN	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
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AILERON EFFECTIVENESS, ABES OFF

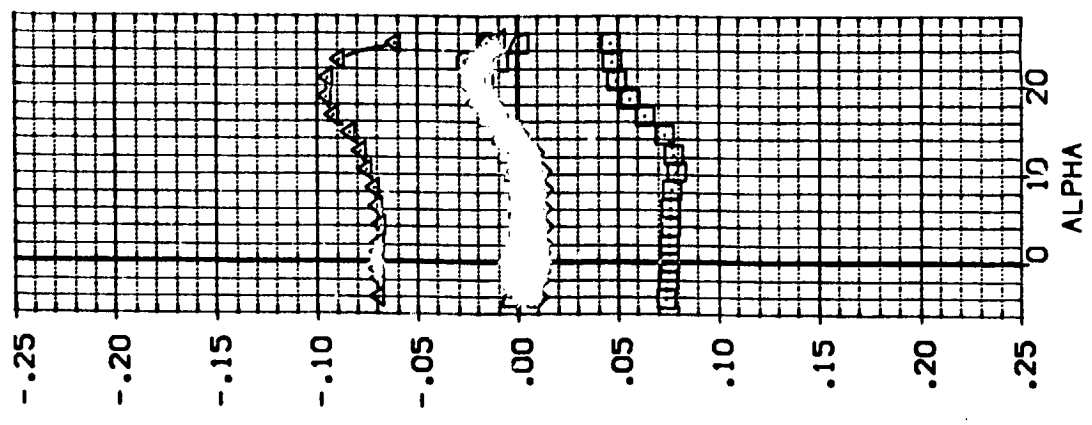
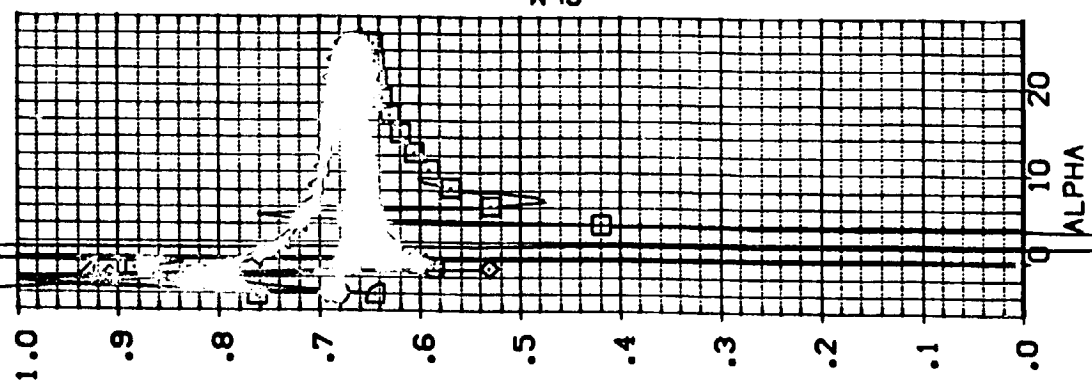
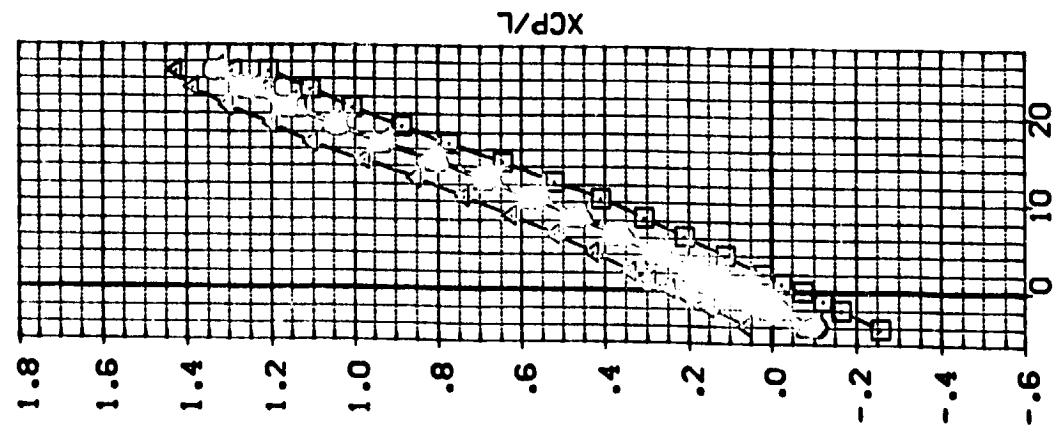
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

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(ADN130)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN131)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN132)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN133)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN134)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN135)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN136)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN137)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN138)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN139)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9
(ADN140)	NR.701.0405	QRB	816CS07F	1V87E	18V5X9

ELEVON AILERON RUDDER B,FLAP REFERENCE INFORMATION

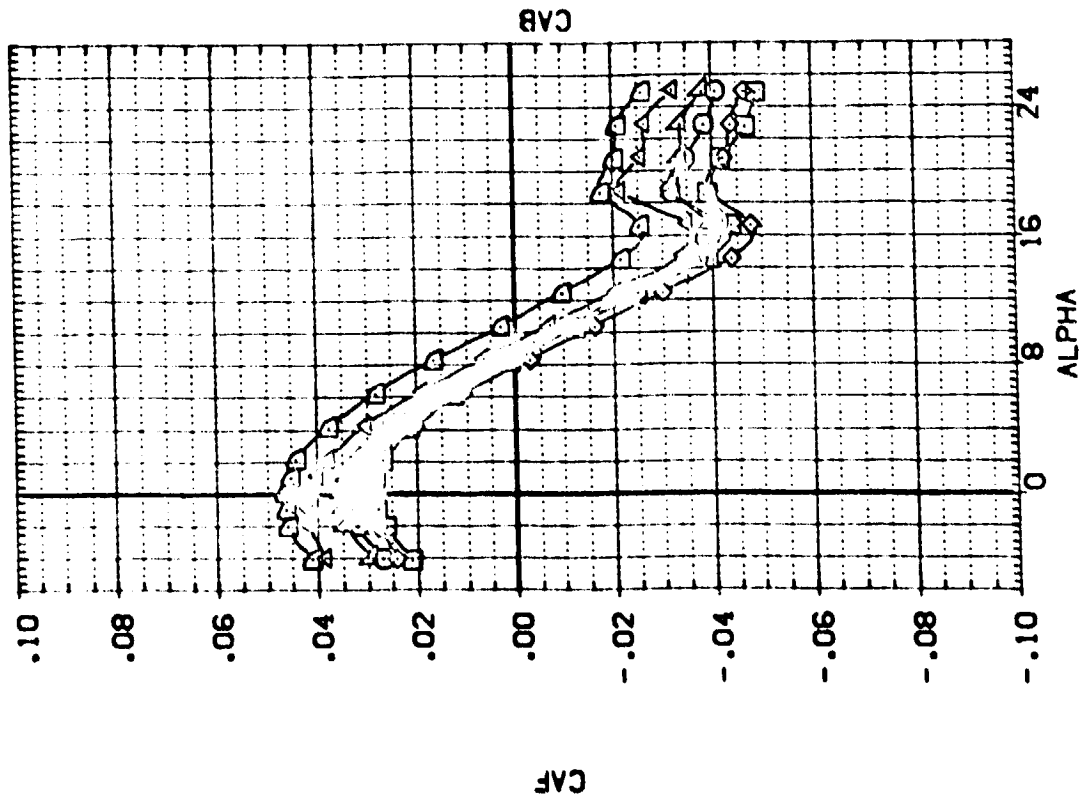
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.000	10.000	.000	-18.000	YMRP	.0000	INCHES
.000	15.000	.000	-18.000	ZMRP	16.2000	INCHES
				SCALE	.0405	SCALE



AILERON EFFECTIVENESS, ABES OFF

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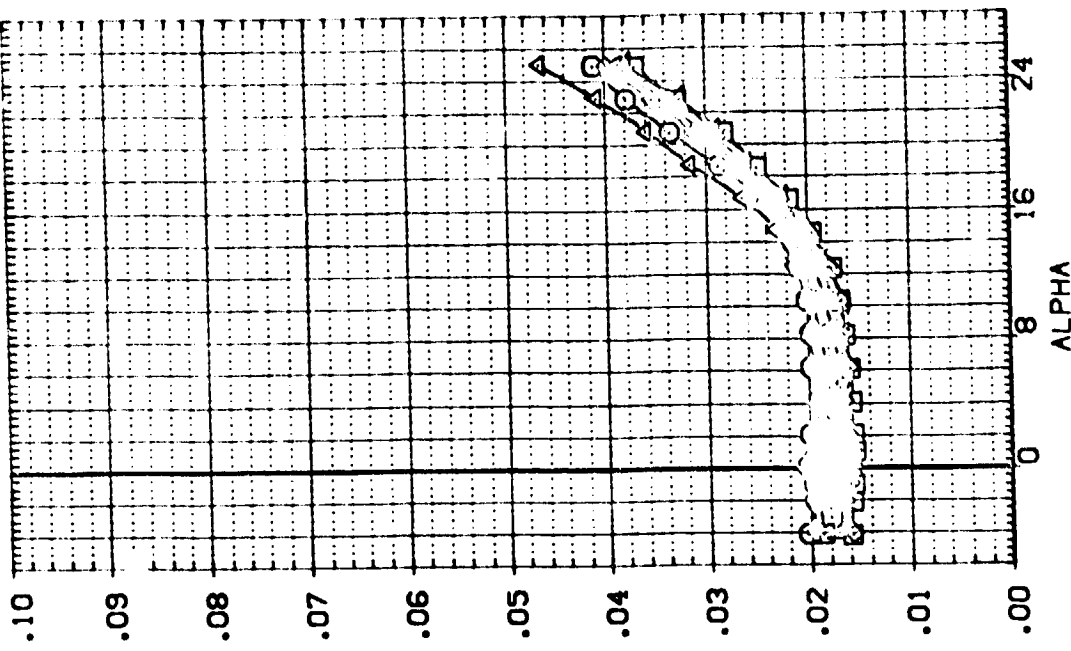
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AILERON EFFECTIVENESS, ABES OFF

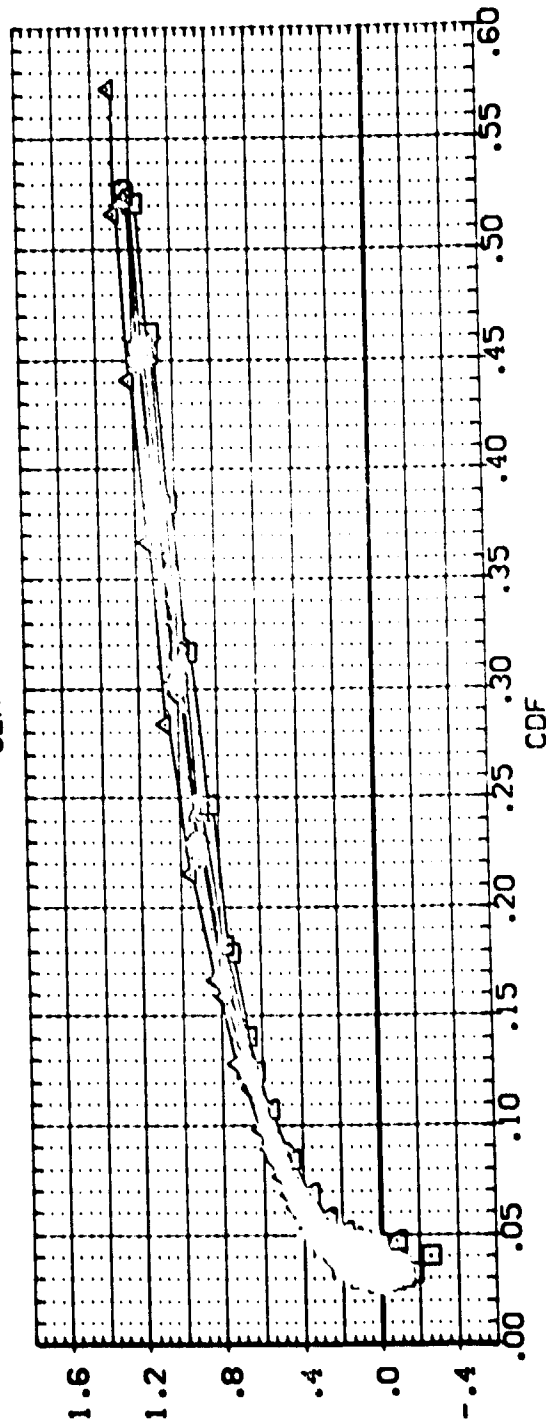
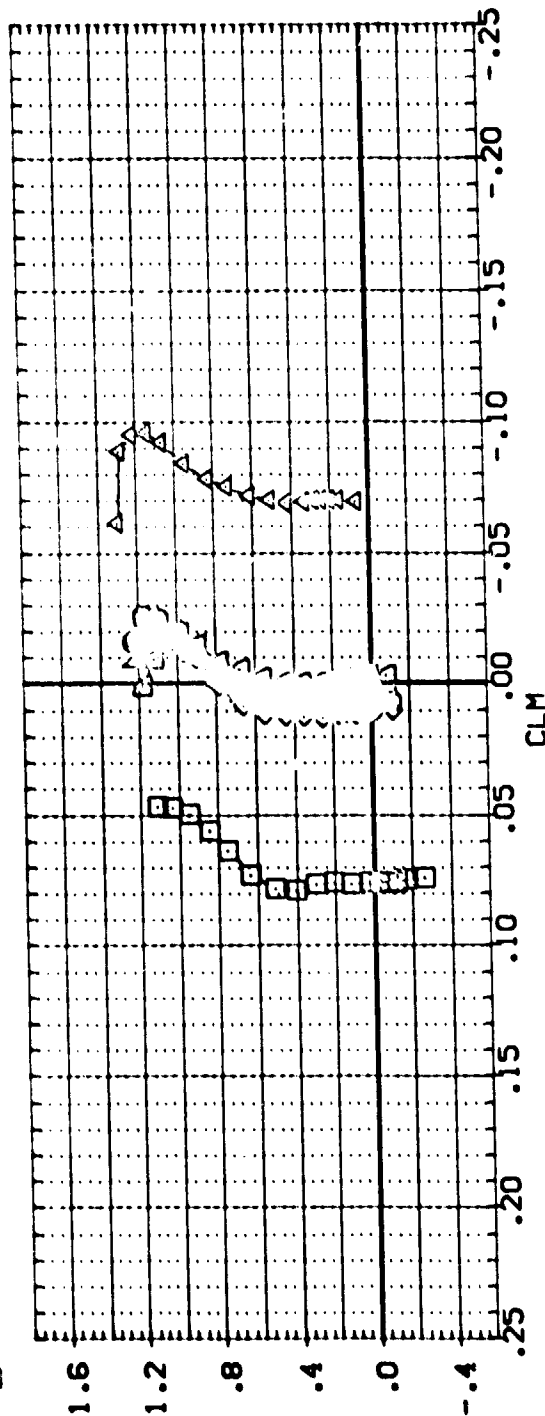
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 0.00 15.000 0.00 -18.000



ELEVON	AILERON	RUDDER	3-FLAP	REFERENCE INFORMATION	50-FT.
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DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
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(ADM132)	NP.701.0405	0P3 B160507F 1V87E 18VSX9
(ADM125)	NP.701.0405	0P3 B160507F 1V87E 18VSX9
(ADM131)	NP.701.0405	0P3 B160507F 1V87E 18VSX9
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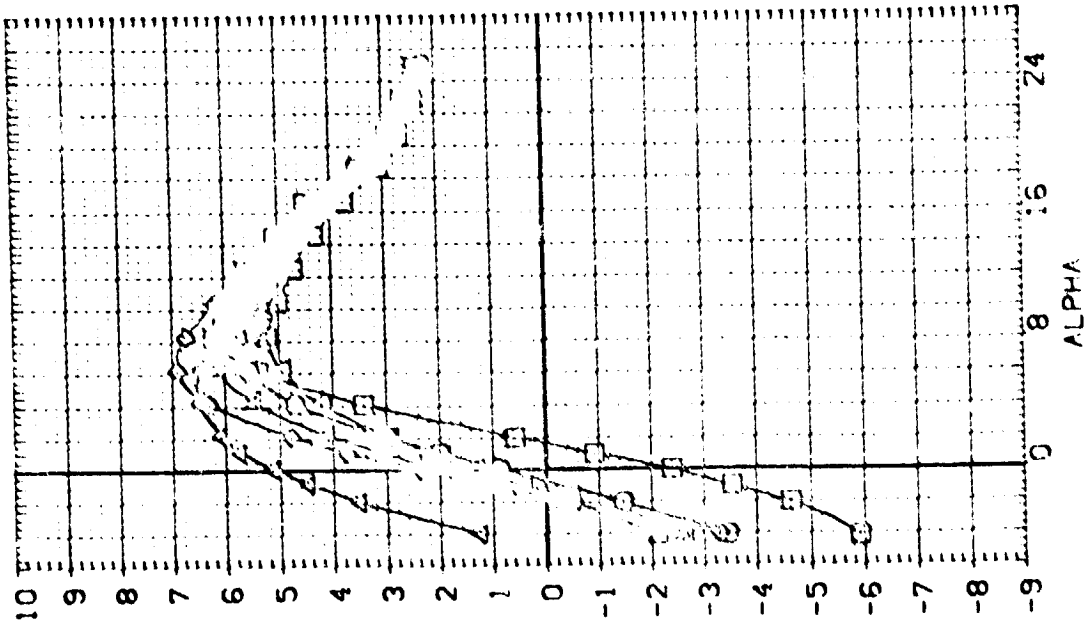
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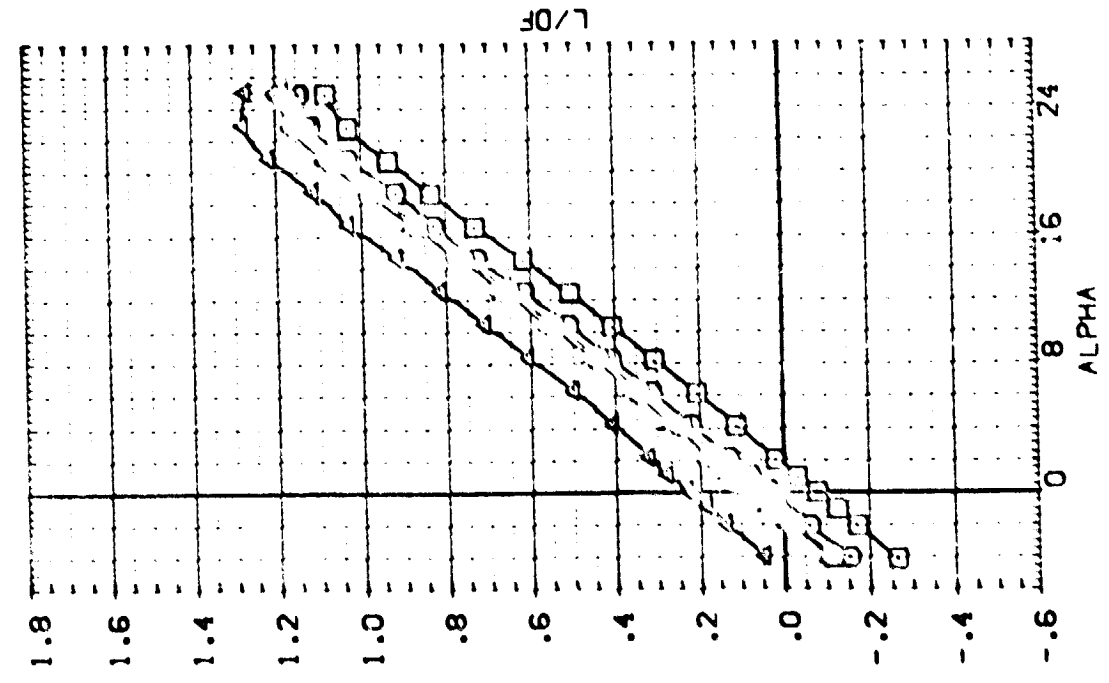




DATA SET SYMBOL	DESCRIPTION	ELEVATION	WINDIAL	LIP	RESIDUAL INFORMATION	SCALE
23022	10.701 24.25 278 21.6507 23.707 28.5119	10.000	1.000	1.000	5000	50.000
23023	10.701 24.25 278 21.6507 23.707 28.5119	7.500	1.000	1.000	5000	50.000
23024	10.701 24.25 278 21.6507 23.707 28.5119	5.000	1.000	1.000	5000	50.000
23025	10.701 24.25 278 21.6507 23.707 28.5119	2.500	1.000	1.000	5000	50.000
23026	10.701 24.25 278 21.6507 23.707 28.5119	0.000	1.000	1.000	5000	50.000
23027	10.701 24.25 278 21.6507 23.707 28.5119	-2.500	1.000	1.000	5000	50.000
23028	10.701 24.25 278 21.6507 23.707 28.5119	-5.000	1.000	1.000	5000	50.000
23029	10.701 24.25 278 21.6507 23.707 28.5119	-7.500	1.000	1.000	5000	50.000
23030	10.701 24.25 278 21.6507 23.707 28.5119	-10.000	1.000	1.000	5000	50.000



DATA SET SYMBOL	DESCRIPTION	ELEVATION	WINDIAL	LIP	RESIDUAL INFORMATION	SCALE
23031	10.701 24.25 278 21.6507 23.707 28.5119	10.000	1.000	1.000	5000	50.000
23032	10.701 24.25 278 21.6507 23.707 28.5119	7.500	1.000	1.000	5000	50.000
23033	10.701 24.25 278 21.6507 23.707 28.5119	5.000	1.000	1.000	5000	50.000
23034	10.701 24.25 278 21.6507 23.707 28.5119	2.500	1.000	1.000	5000	50.000
23035	10.701 24.25 278 21.6507 23.707 28.5119	0.000	1.000	1.000	5000	50.000
23036	10.701 24.25 278 21.6507 23.707 28.5119	-2.500	1.000	1.000	5000	50.000
23037	10.701 24.25 278 21.6507 23.707 28.5119	-5.000	1.000	1.000	5000	50.000
23038	10.701 24.25 278 21.6507 23.707 28.5119	-7.500	1.000	1.000	5000	50.000
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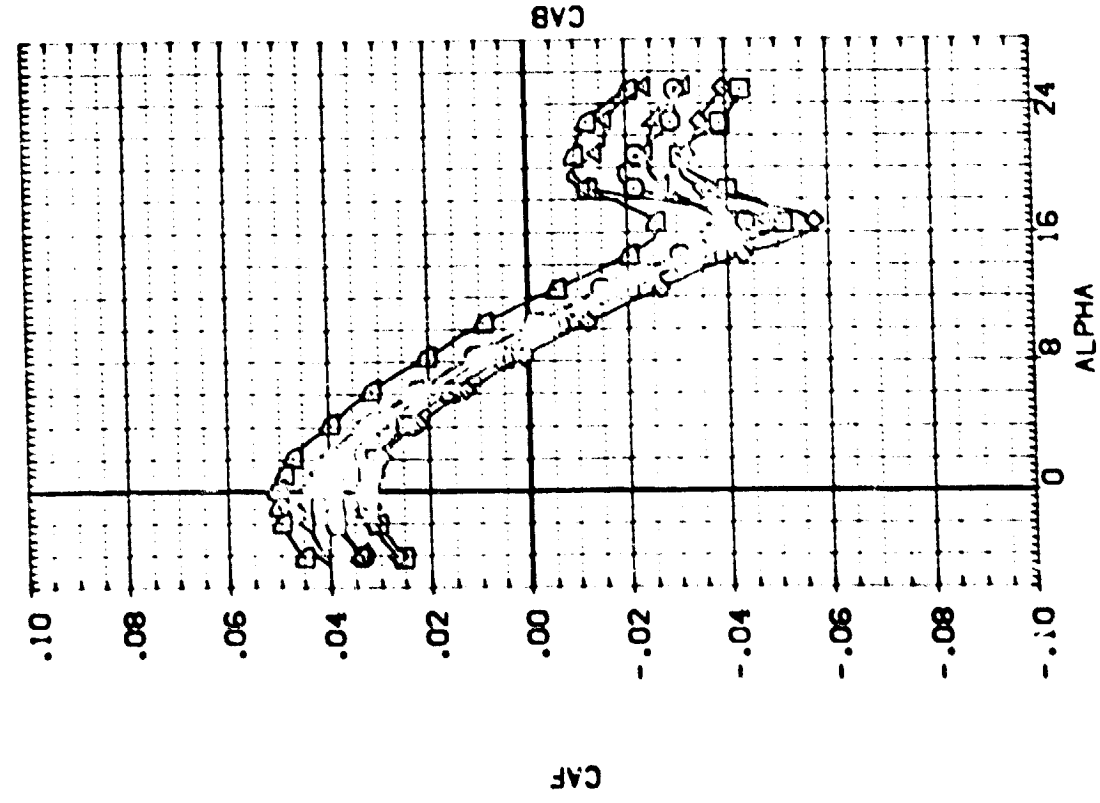


AILEPON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

CALMACH = .20



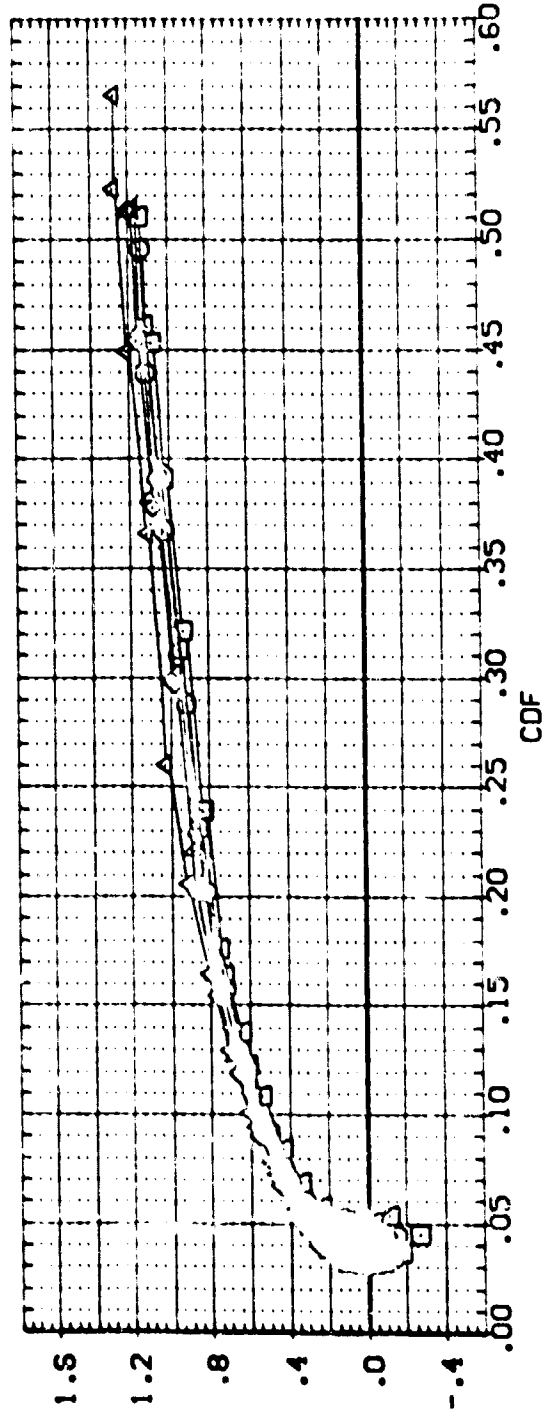
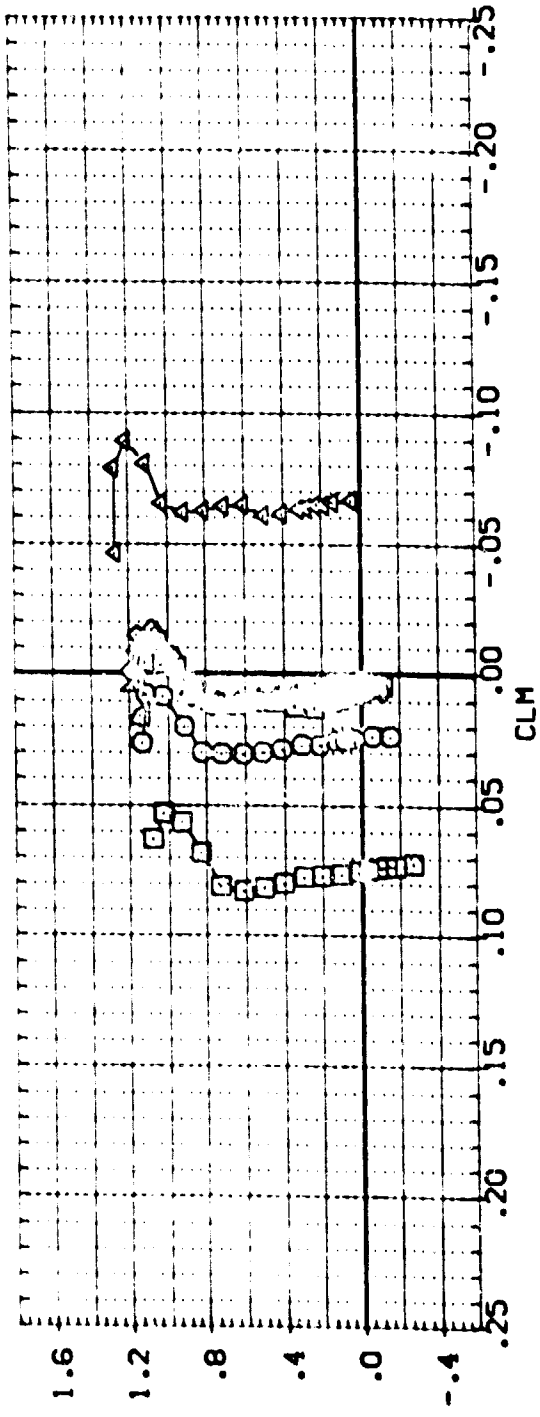
DATA SET SYMBOL	DATA LOCATION	DESCRIPTION	ALUON	ELEVON	WADAL	LIP	REFERENCE IN OPERATION	SO.FT.
[Z-022]	[P-70]	[0405]	[098]	[8]	[655076]	[134876]	[1875]	[10]
[Z-021]	[P-70]	[0405]	[098]	[8]	[655076]	[134876]	[1875]	[10]
[Z-024]	[P-70]	[0405]	[098]	[8]	[655076]	[134876]	[1875]	[10]
[Z-020]	[P-70]	[0405]	[098]	[8]	[655076]	[134876]	[1875]	[10]
[Z-023]	[P-70]	[0405]	[098]	[8]	[655076]	[134876]	[1875]	[10]
[Z-019]	[P-70]	[0405]	[098]	[8]	[655076]	[134876]	[1875]	[10]



AILERON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

(M)MACH = .20

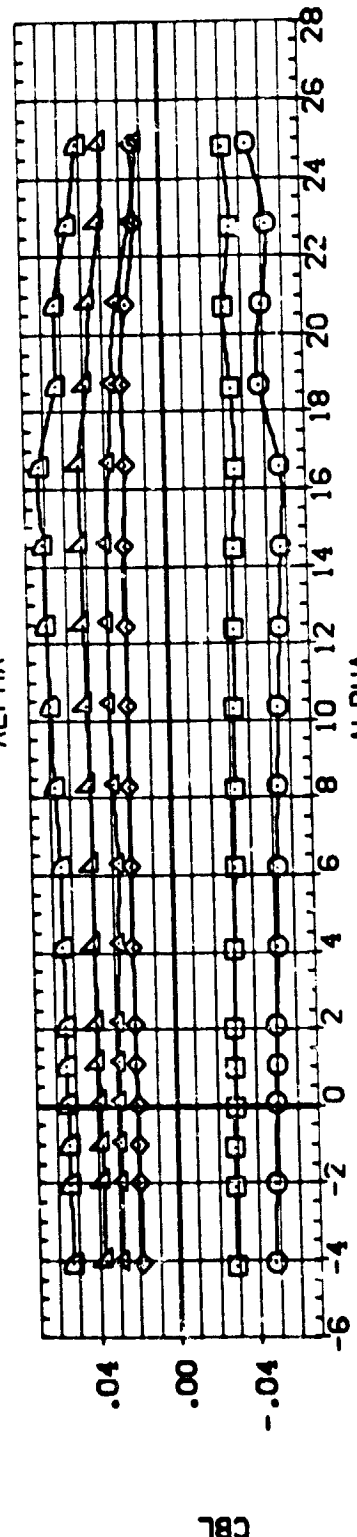
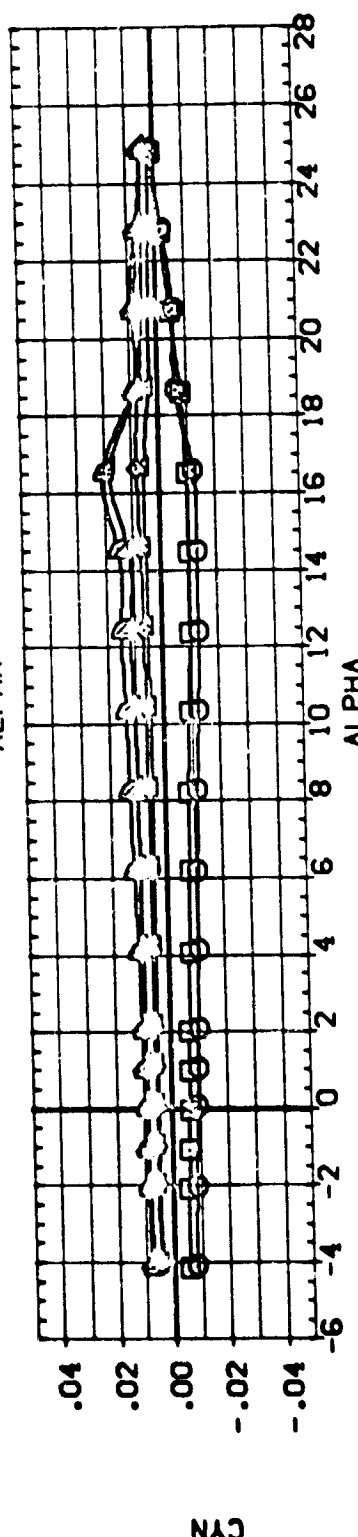
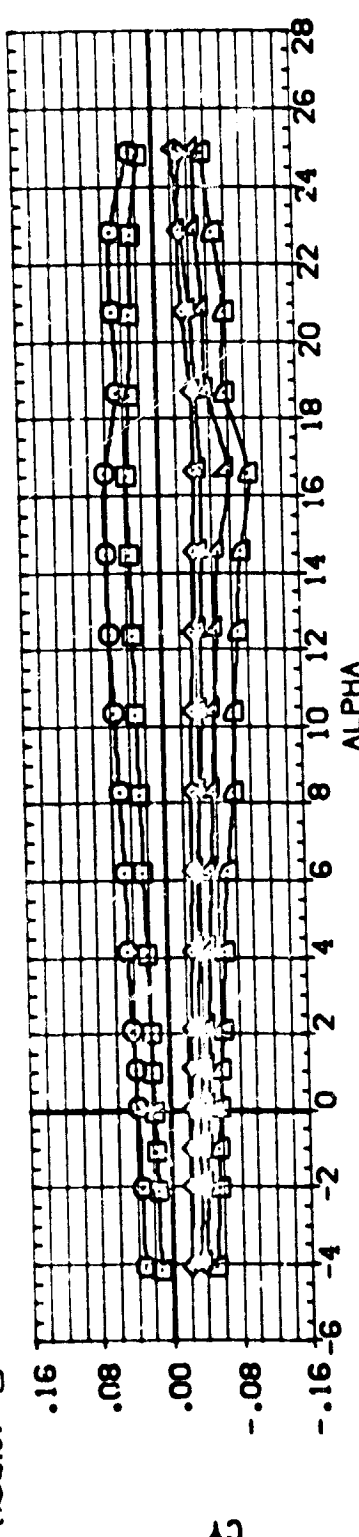
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	AILERON	ELEVON	NACAL	LIP	REFERENCE INFORMATION
(ZD-072)	18-701-0405	008 0180507E 143087E 1045X10	-10.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
(ZD-073)	18-701-0405	008 0180507E 143087E 1045X10	-7.500	.000	.000	4.000	REF 9.2573
(ZD-074)	18-701-0405	008 0180507E 143087E 1045X10	5.000	.000	.000	4.000	REF 37.9319
(ZD-075)	18-701-0405	008 0180507E 143087E 1045X10	7.500	.000	.000	4.000	REF 43.2374
(ZD-076)	18-701-0405	008 0180507E 143087E 1045X10	10.000	.000	.000	4.000	REF 15.2000
(ZD-077)	18-701-0405	008 0180507E 143087E 1045X10	15.000	.000	.000	4.000	REF 15.2000
							SCALE .0405



AILERON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

(A)MACH = .20

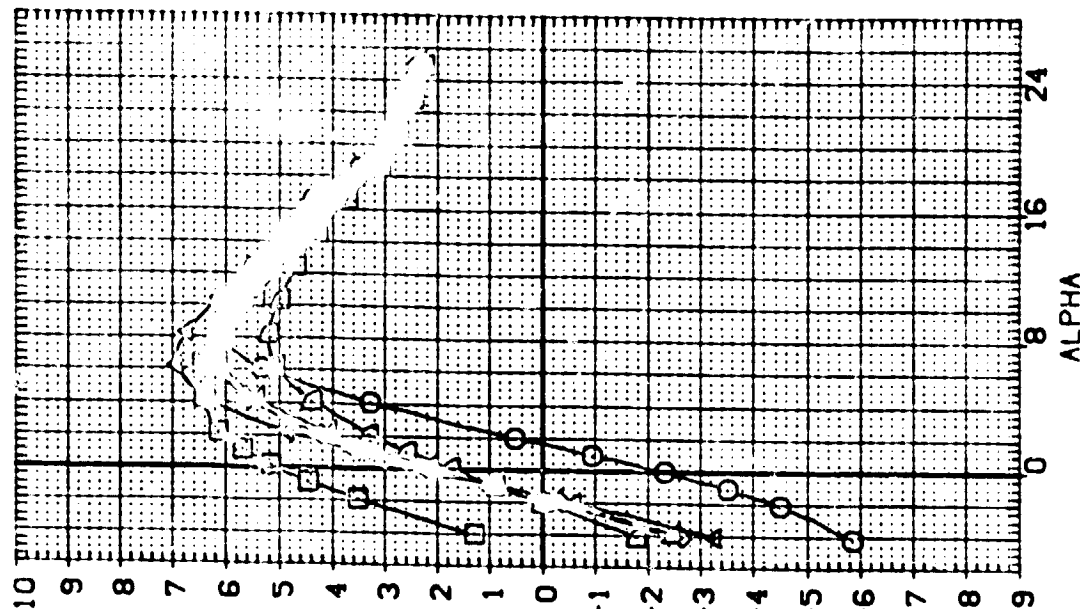
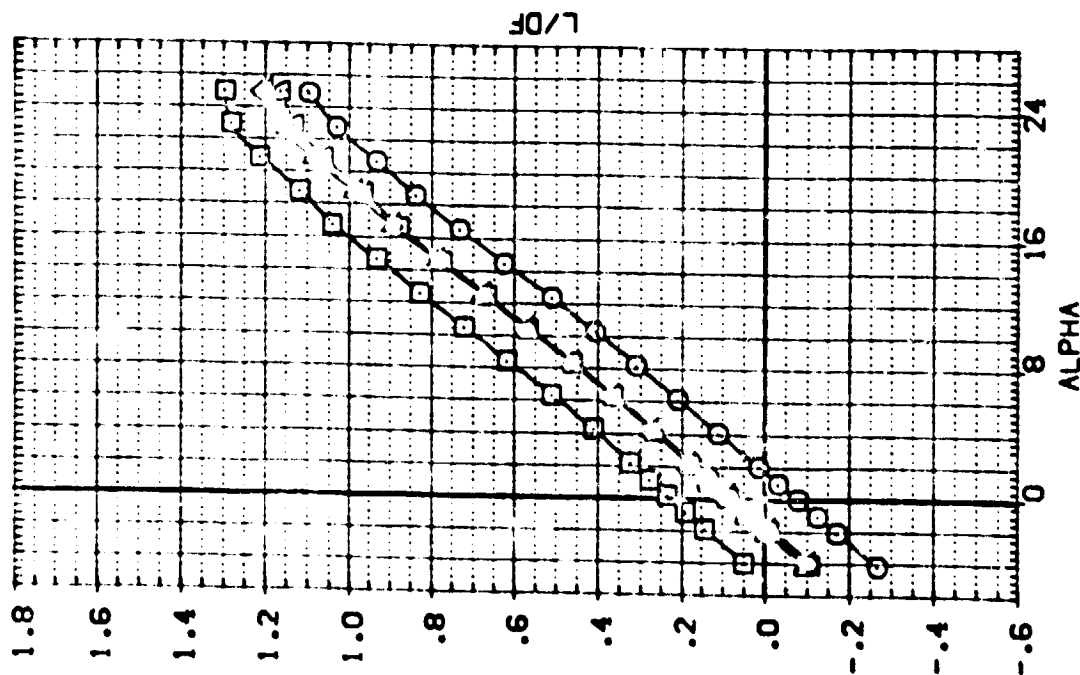
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	NACA	LIP	REFERENCE INFORMATION
(X0-022)	MR.701.0405 083 818C507F 1J 3V87E 18V5X10	-10.000	.000	.000	4.000	SREF 4.4119 50.FT. INCHES
(X0-021)	MR.701.0405 083 818C507F 1J 3V87E 18V5X10	-7.500	.000	.000	4.000	LREF 19.2399 INCHES
(X0-024)	MR.701.0405 083 818C507F 1J 3V87E 18V5X10	5.000	.000	.000	4.000	BREF 37.5019 INCHES
(X0-023)	MR.701.0405 083 818C507F 1J 3V87E 18V5X10	7.500	.000	.000	4.000	WREF 43.5874 INCHES
(X0-023)	MR.701.0405 083 818C507F 1J 3V87E 18V5X10	10.000	.000	.000	4.000	YREF 16.0000 INCHES
(X0-019)	MR.701.0405 083 818C507F 1J 3V87E 18V5X10	15.000	.000	.000	4.000	ZREF 16.2000 INCHES
						SCALE .0405



AILERON EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	NACELLE	LIP	REFERENCE INFORMATION
(AUG052)	NR 701 0405 088 816CS07E 13467E 18V5X10	-7.500	-7.500	.100	4.000	50. FT.
(AUG051)	NR 701 0405 088 816CS07E 13467E 18V5X10	-7.500	7.500	.100	4.000	4.4119
(AUG053)	NR 701 0405 088 816CS07E 13467E 18V5X10	-10.000	.000	.100	4.000	19.2889
(AUG054)	NR 701 0405 088 816CS07E 13467E 18V5X10	5.000	.000	.100	4.000	37.5349
(AUG054)	NR 701 0405 088 816CS07E 13467E 18V5X10	10.000	.000	.100	4.000	43.5574
(AUG054)	NR 701 0405 088 816CS07E 13467E 18V5X10	15.000	.000	.100	4.000	16.2000
						SCALE



AILERON EFFECTIVENESS, ABES MOVED AFT .100 NACELLE LENGTH (4 NACELLES)

(A)MACH = .20

PAGE

60

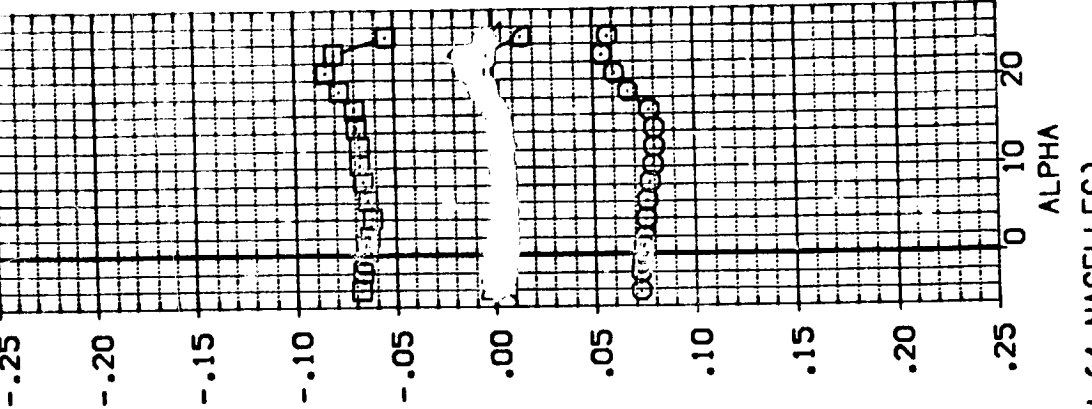
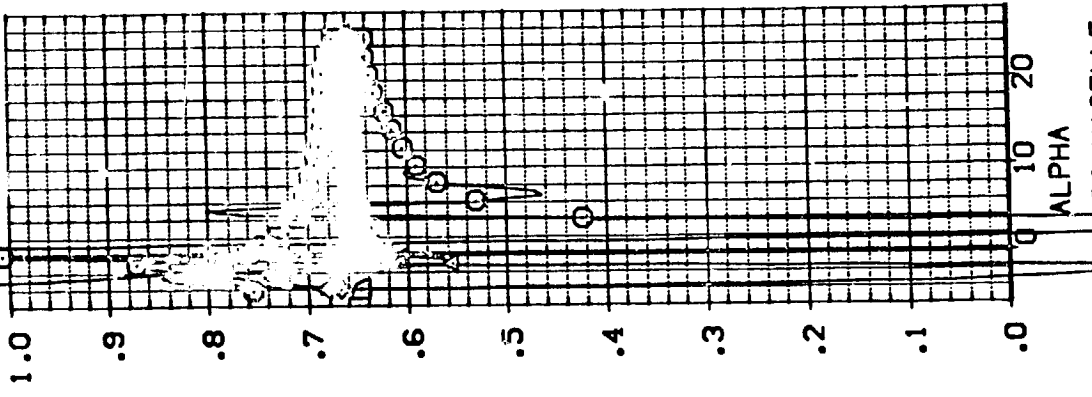
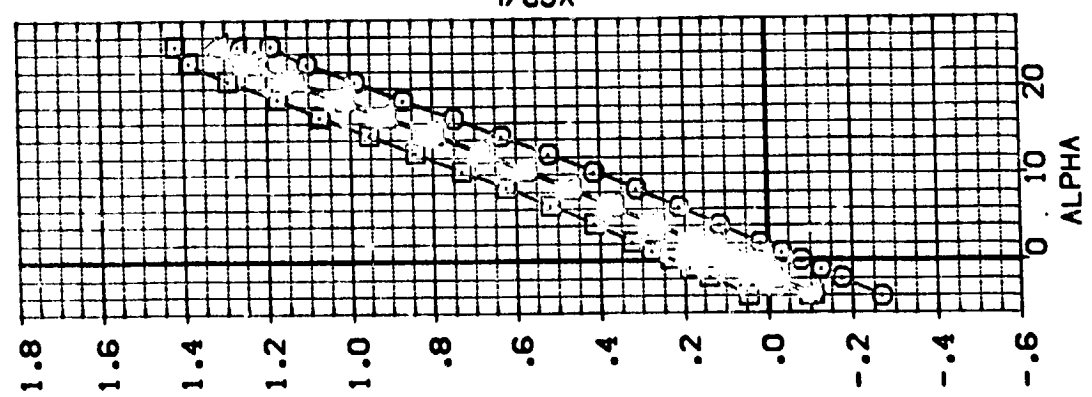
DATA SET SYMBOL  
 (ADN052)  
 (ADN051)  
 (ADN053)  
 (ADN055)  
 (ADN054)  
 (ADN050)

CONFIGURATION DESCRIPTION  
 NR.701.0405 0RB 816CS07F J3V87E18VX10  
 NR.701.0405 0RB 816CS07F J3V87E18VX10  
 NR.701.0405 0RB 816CS07F J3V87E18VX10  
 NR.701.0405 0RB 816CS07F J3V87E18VX10  
 NR.701.0405 0RB 816CS07F J3V87E18VX10  
 NR.701.0405 0RB 816CS07F J3V87E18VX10

AILERON ELEVON  
 -7.500  
 -7.500  
 -7.500  
 -10.000  
 5.000  
 10.000  
 15.000

NACVAL  
 1.000  
 .100  
 .100  
 .100  
 .100  
 .100  
 .100

REFERENCE INFORMATION  
 SREF 4.4119 50.FT. INCHES  
 LREF 19.2999 INCHES  
 XREF 37.5374 INCHES  
 YREF 43.5374 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405



AILERON EFFECTIVENESS, ABES MOVED AFT

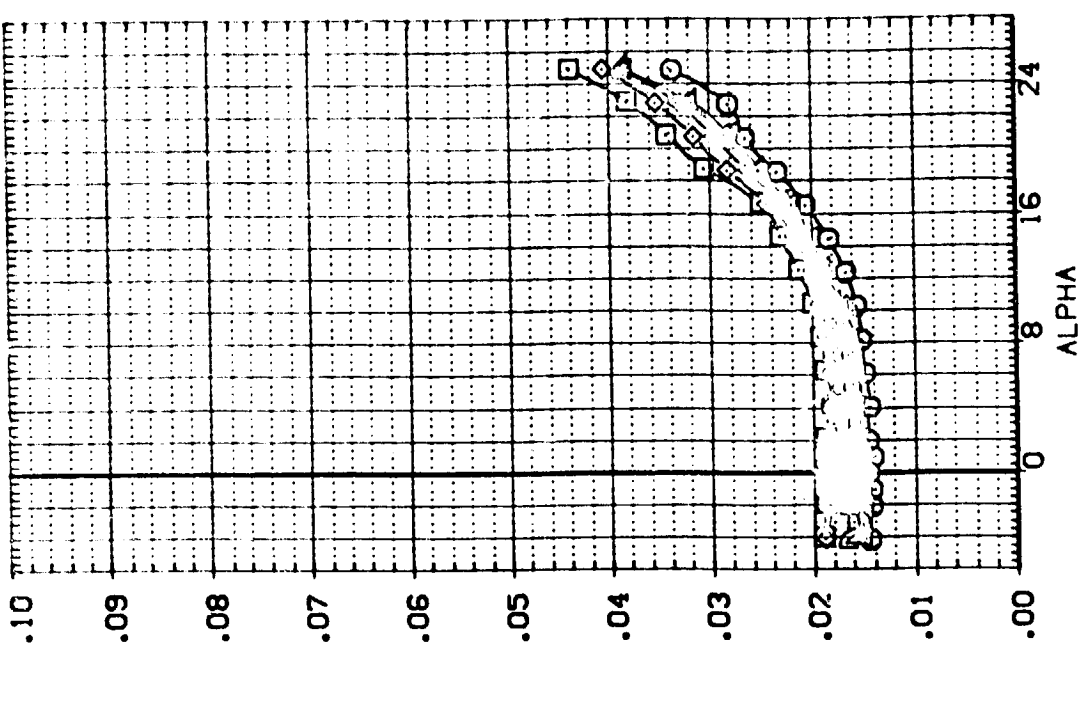
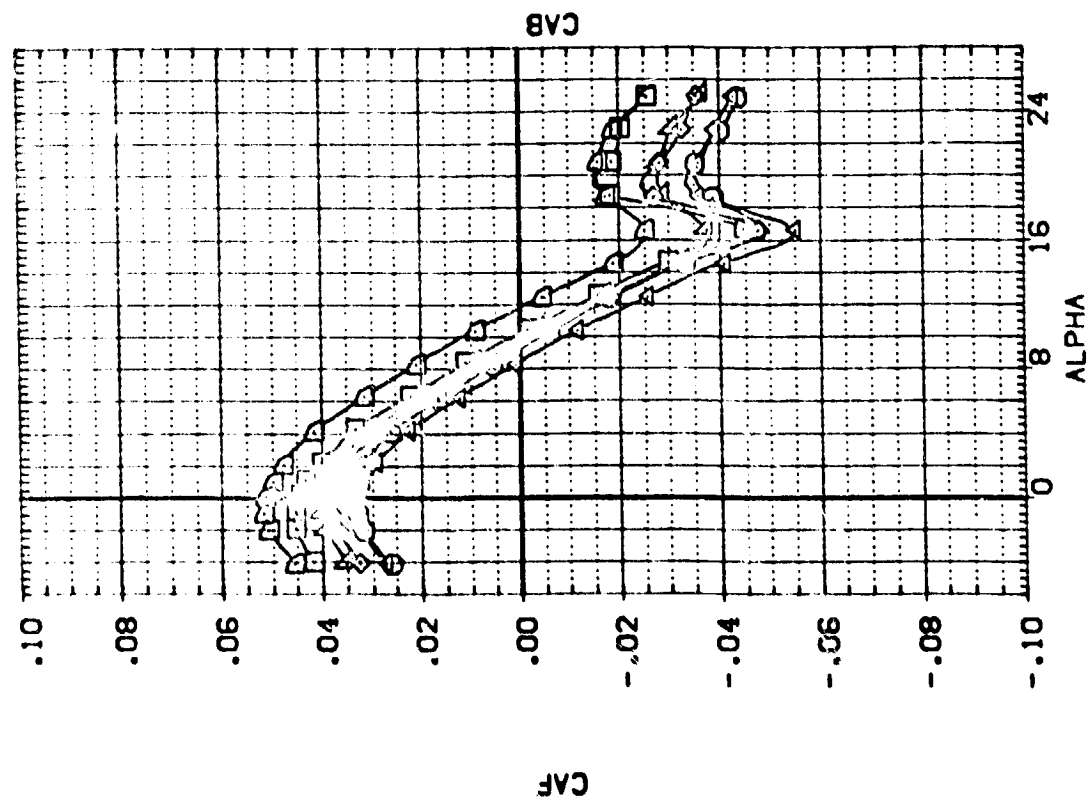
100 NACELLE LENGTH (4 NACELLES)

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	REF. NO.	SCALE
[AD-052]	81-01-0405	81-01-0405	81-01-0405	81-01-0405
[AD-051]	81-01-0405	81-01-0405	81-01-0405	81-01-0405
[AD-053]	81-01-0405	81-01-0405	81-01-0405	81-01-0405
[AD-054]	81-01-0405	81-01-0405	81-01-0405	81-01-0405
[AD-055]	81-01-0405	81-01-0405	81-01-0405	81-01-0405

AILERON	ELEVON	NACELLE	LIP	REF. NO.	SCALE
-7.500	-7.500	.100	4.000	81-01-0405	81-01-0405
-7.500	-7.500	.100	4.000	81-01-0405	81-01-0405
-10.000	-10.000	.100	4.000	81-01-0405	81-01-0405
5.000	5.000	.100	4.000	81-01-0405	81-01-0405
10.000	10.000	.100	4.000	81-01-0405	81-01-0405
15.000	15.000	.100	4.000	81-01-0405	81-01-0405

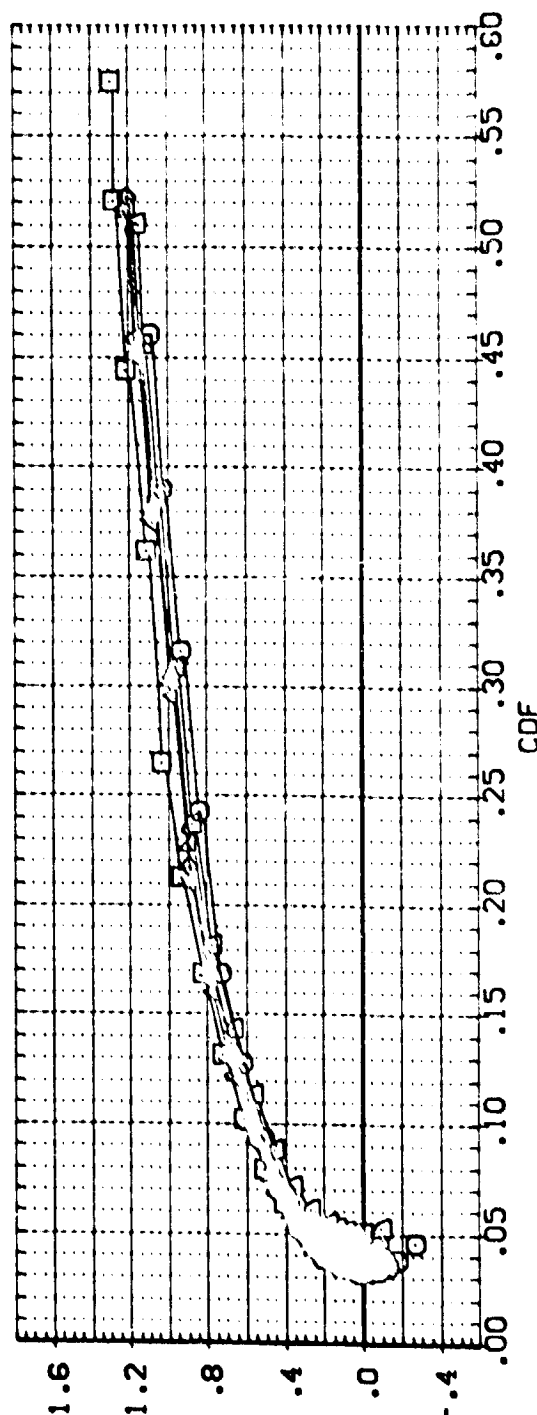
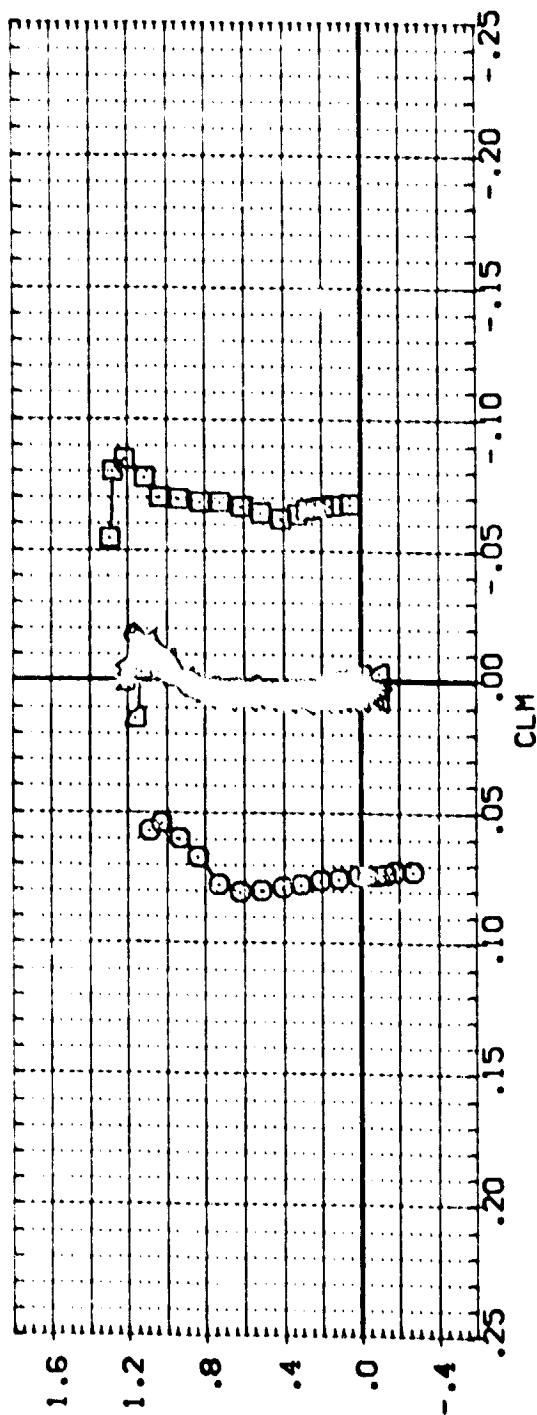


AILERON EFFECTIVENESS, ABES MOVED AFT .100 NACELLE LENGTH (4 NACELLES)

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	NOXAL	LIP	REFERENCE INFORMATION	SQ. FT.
(AD052)	NR 70 0425 028 B 02507E 18/5X10	-7.500	-7.500	.100	4.000	SREF	4.4119
(AD051)	NR 70 0425 028 B 02507E 18/5X10	-7.500	7.500	.100	4.000	UREF	19.2999
(AD053)	NR 70 0425 028 B 02507E 18/5X10	-10.000	.000	.100	4.000	BREF	37.9349
(AD055)	NR 70 0425 028 B 02507E 18/5X10	5.000	.000	.100	4.000	WREF	43.5574
(AD054)	NR 70 0425 028 B 02507E 18/5X10	15.000	.000	.100	4.000	ZREF	16.2000
(AD050)	NR 70 0425 028 B 02507E 18/5X10					SCALE	.0405



AILERON EFFECTIVENESS, ABES MOVED AFT .100 NACELLE LENGTH (4 NACELLES)

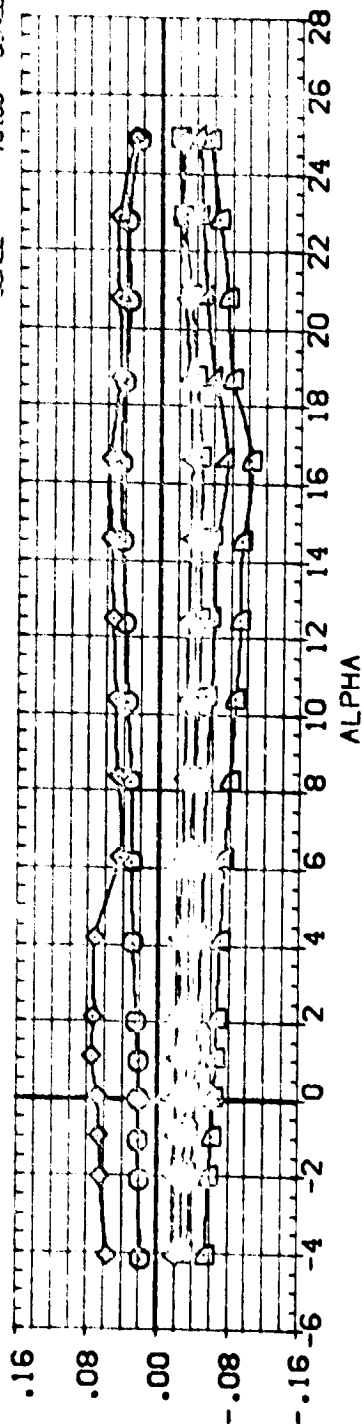
(ADMACH = .20

PAGE

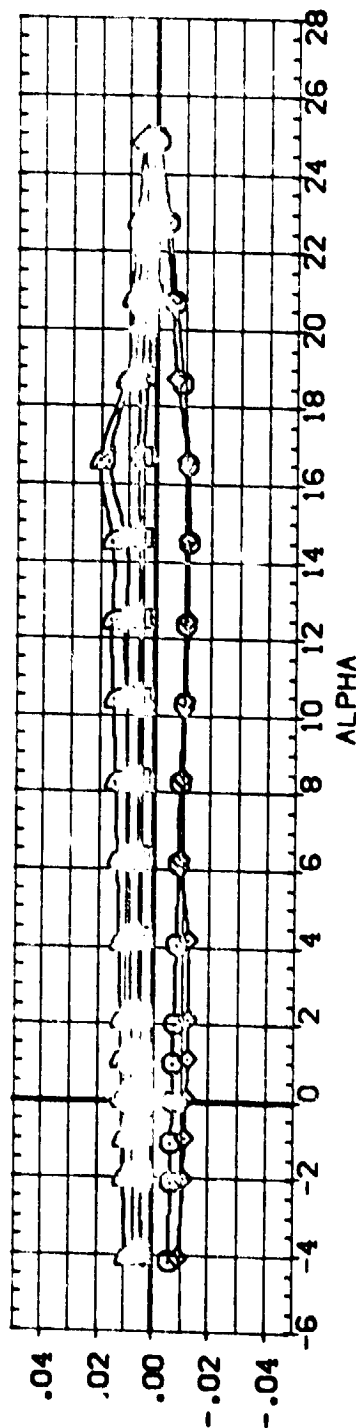
63

DATA SET SYMBOL: **QX410** CONFIGURATION DESCRIPTION: **NR.701 .0405 Q98 816507E 13.07E 16.5X10**

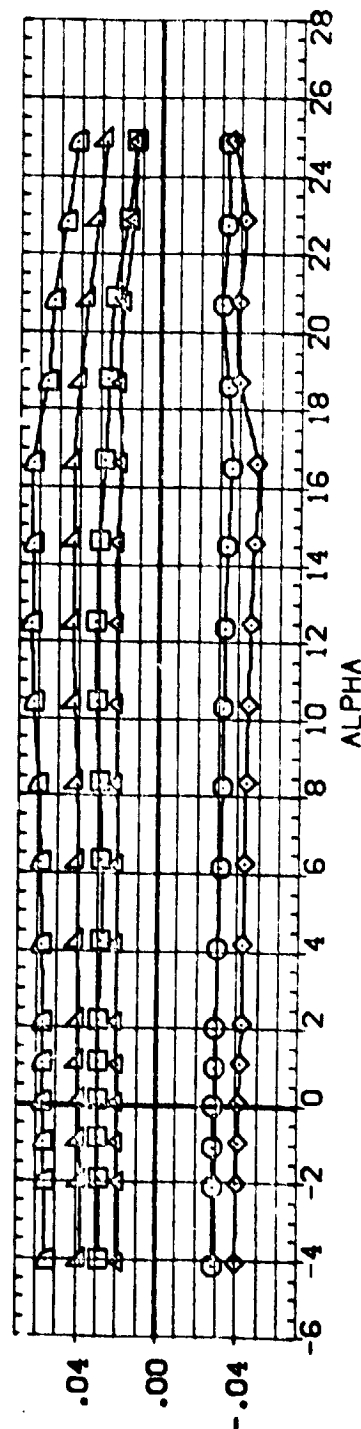
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	WING	LIP	PERFORMANCE INFORMATION
(80-052)	NR.701 .0405 Q98 816507E 13.07E 16.5X10	-7.500	-7.500	.00	4.000	SRF 4.4113 SQ.FT.
(80-051)	NR.701 .0405 Q98 816507E 13.07E 16.5X10	-7.500	-7.500	.00	4.000	REF 19.2398 INCHES
(80-053)	NR.701 .0405 Q98 816507E 13.07E 16.5X10	-10.000	.000	.00	4.000	REF 37.3349 INCHES
(80-055)	NR.701 .0405 Q98 816507E 13.07E 16.5X10	5.000	.000	.00	4.000	REF 43.5274 INCHES
(80-054)	NR.701 .0405 Q98 816507E 13.07E 16.5X10	10.000	.000	.00	4.000	REF 16.2000 INCHES
(80-050)	NR.701 .0405 Q98 816507E 13.07E 16.5X10				4.000	SCALE .0405



CY



CYN



CBL

AILERON EFFECTIVENESS. ABES MOVED AFT .10C NACELLE LENGTH (4 NACELLES)

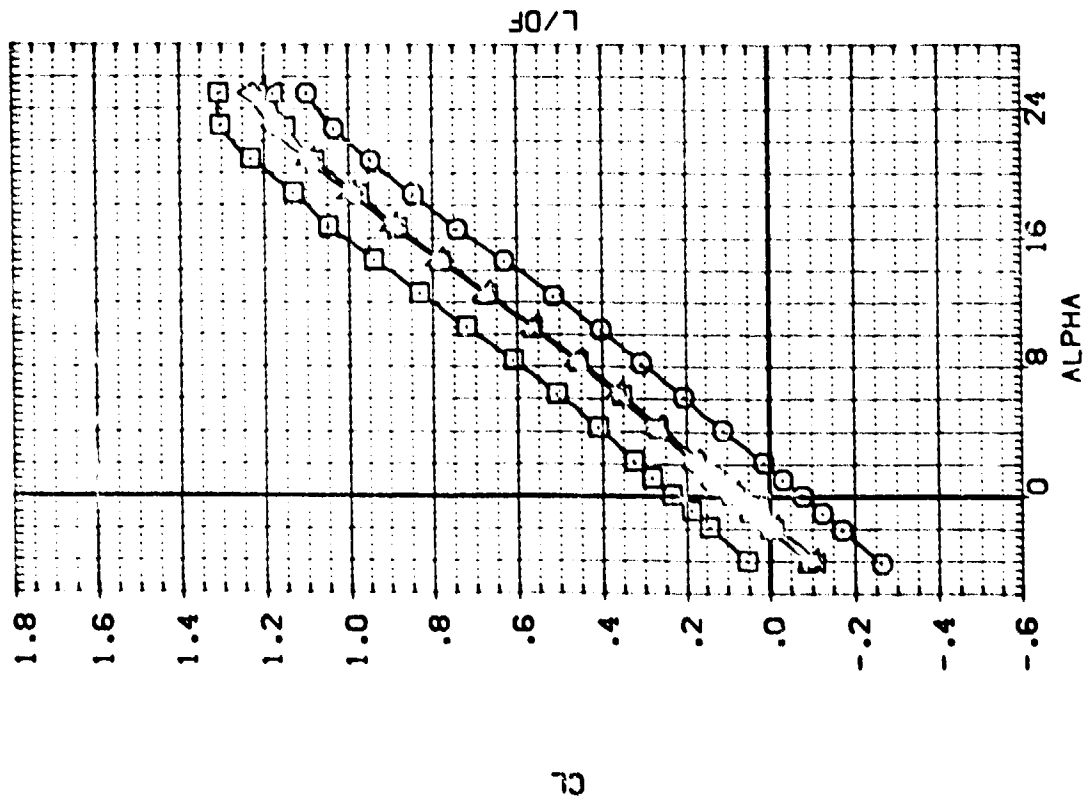
(A)MACH = .20

PAGE

64

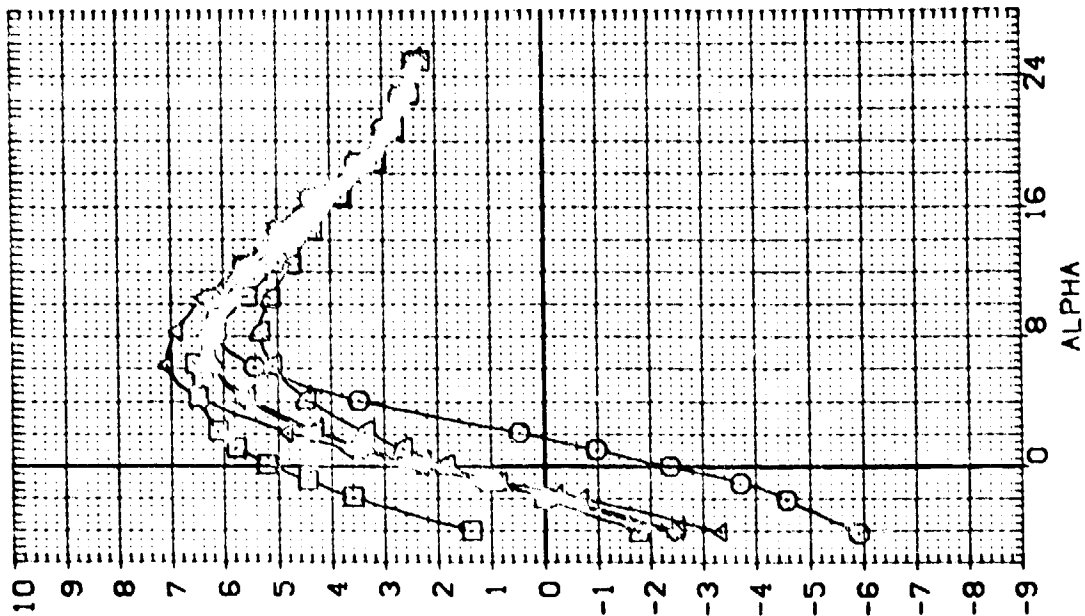
DATA SET SYMBOL ORIGIN ORIGIN DESCRIPTION

(AD-085)	NP-701	0405	093	8	0405	13487E	18/5X10
(AD-084)	NP-701	0405	093	8	0405	13487E	18/5X10
(AD-082)	NP-701	0405	093	8	0405	13487E	18/5X10
(AD-079)	NP-701	0405	093	8	0405	13487E	18/5X10
(AD-086)	NP-701	0405	093	8	0405	13487E	18/5X10
(AD-083)	NP-701	0405	093	8	0405	13487E	18/5X10



AILERON ELEVON MACAL LIP REFERENCE INFORMATION

-7.500	-7.500	.250	1.000	SRF	4.4119	50.00
-7.500	-7.500	.250	1.000	LRF	19.2689	100.00
-10.000	.000	.250	1.000	BRF	37.9249	100.00
-10.000	.000	.250	1.000	YRP	43.9974	100.00
-10.000	.000	.250	1.000	ZRP	16.2000	100.00
-15.000	.000	.250	1.000	SCALE	.0405	SCALE

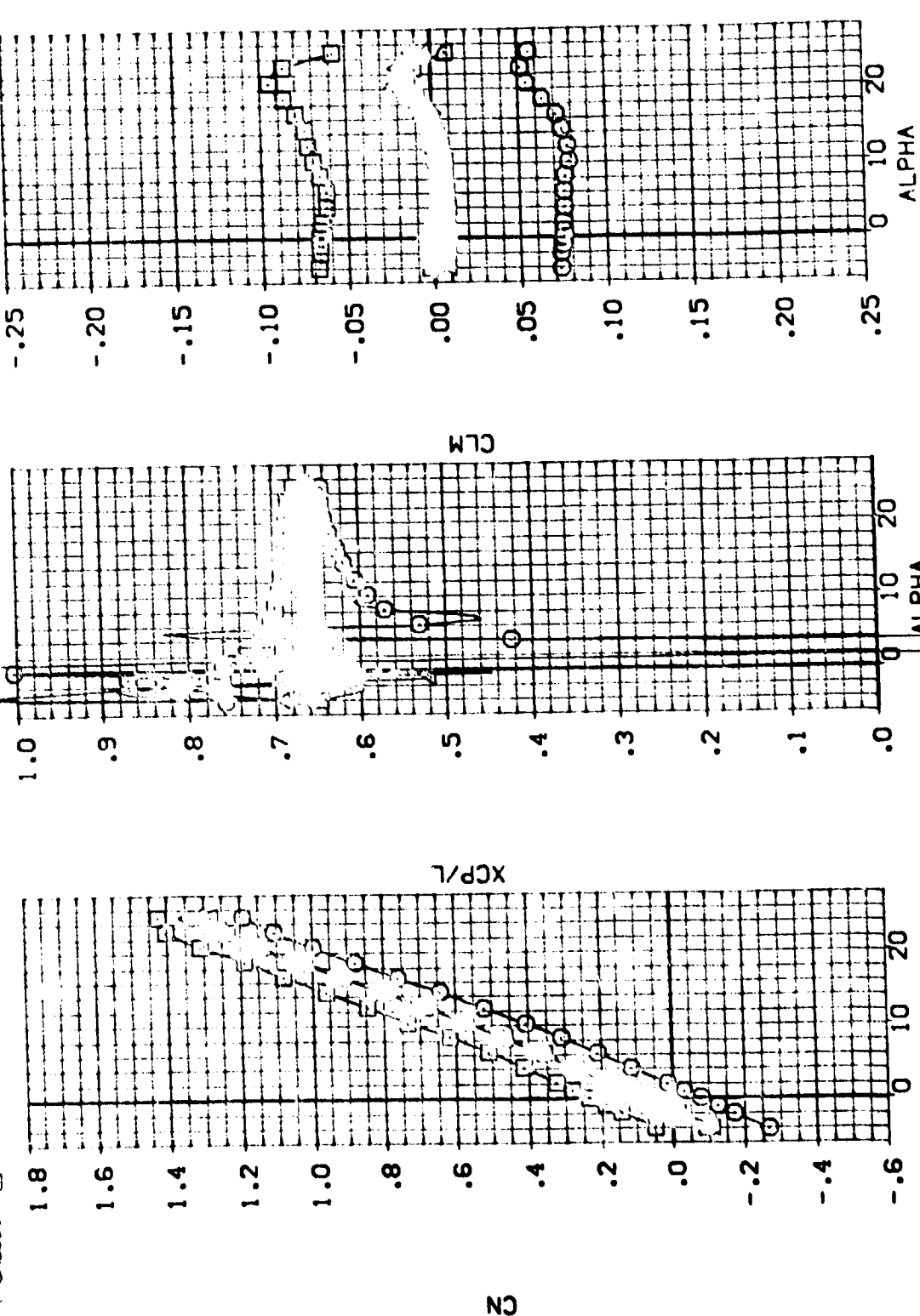


AILERON EFFECTIVENESS, INBD ABES MOVED FWD, OUTBD AFT .250 NACELLE LENGTH(4 NAC)

(A)MACH = .20

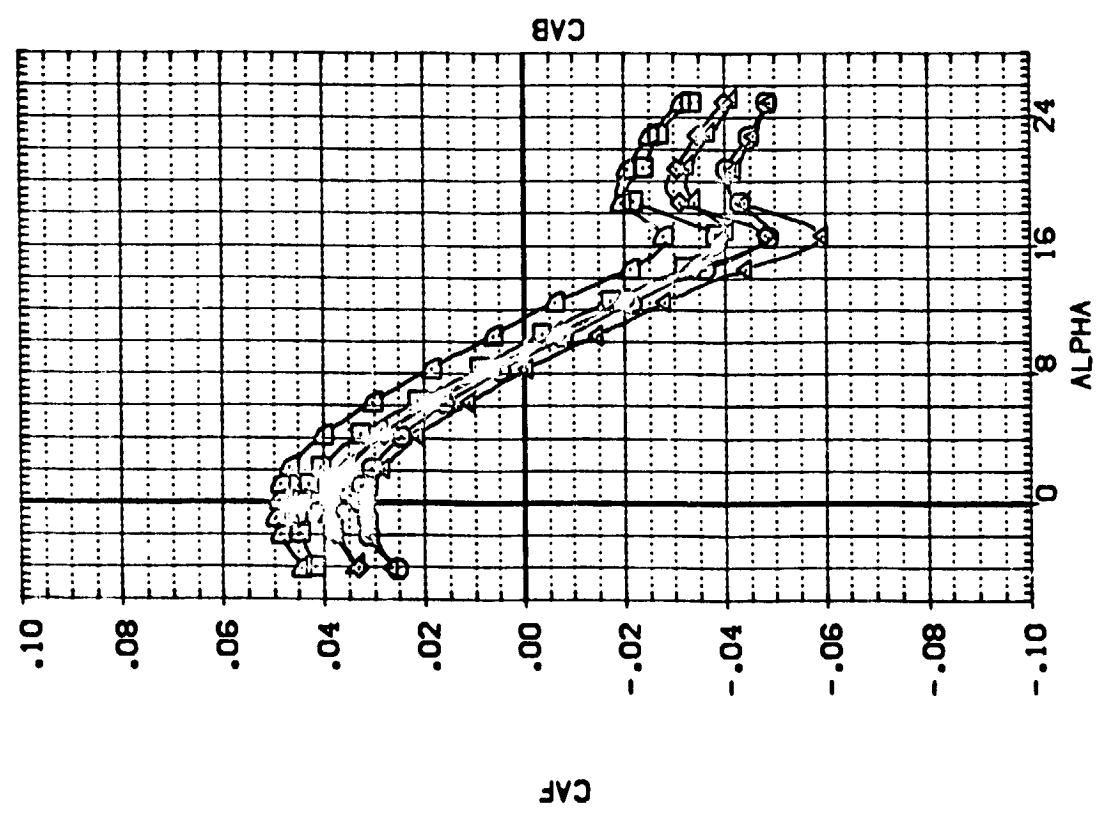
PAGE 65

TA SET SPEED	COSE (COST PER HOUR)	RESOURC (HOURS)	ALUMIN (LBS)	FEELON (LBS)	MODAL (LBS)	LIP (LBS)	NO FORCE IN ZONE	SCALE
1000	8.70	8.00	7.50	7.50	250	1.000	4.419	1.5
1000	8.70	8.00	7.50	7.50	250	1.000	19.203	1.5
1000	8.70	8.00	7.50	7.50	250	1.000	37.037	1.5
1000	8.70	8.00	7.50	7.50	250	1.000	43.037	1.5
1000	8.70	8.00	5.000	5.000	250	1.000	16.000	1.5
1000	8.70	3.6250	15.000	15.000	250	1.000	10.005	1.5

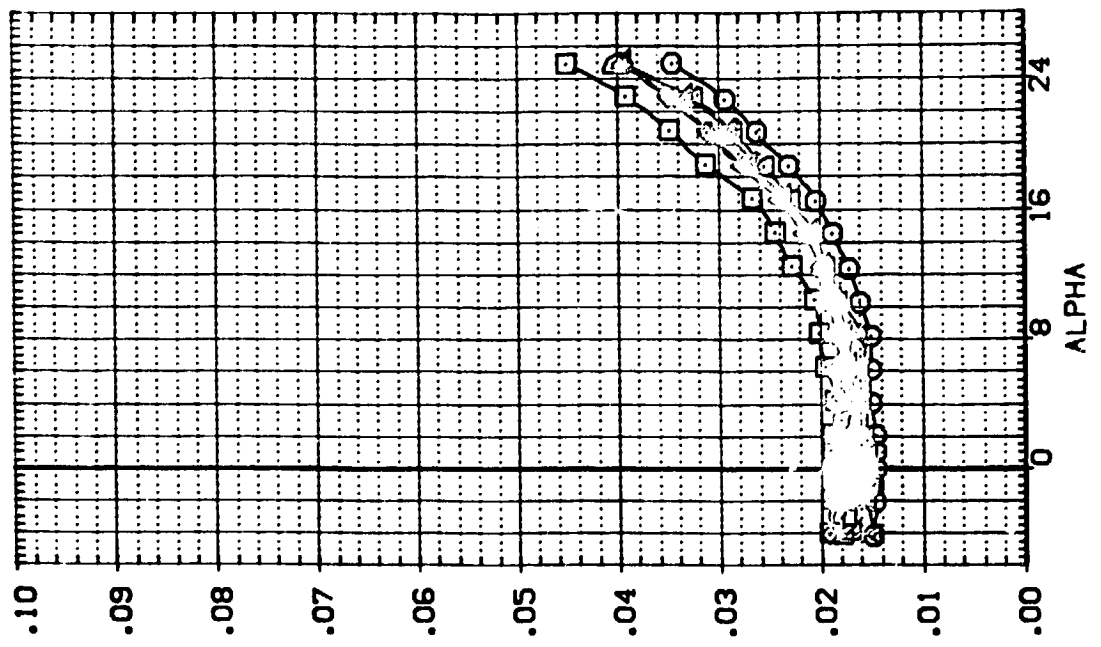


ALPHA  
AILERON EFFECTIVENESS. INBD ABES MOVED FWD. OUTBD AFT .25C NACELLE LENGTH(4 NAC)  
CAJ MACH = .20 PAGE 66

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(AD-085)	NR .701 .0405 CR8 B16C507F 1.3487E18V5X10
(AD-084)	NR .701 .0405 CR8 B16C507F 1.3487E18V5X10
(AD-082)	NR .701 .0405 CR8 B16C507F 1.3487E18V5X10
(AD-079)	NR .701 .0405 CR8 B16C507F 1.3487E18V5X10
(AD-086)	NR .701 .0405 CR8 B16C507F 1.3487E18V5X10
(AD-083)	NR .701 .0405 CR8 B16C507F 1.3487E18V5X10

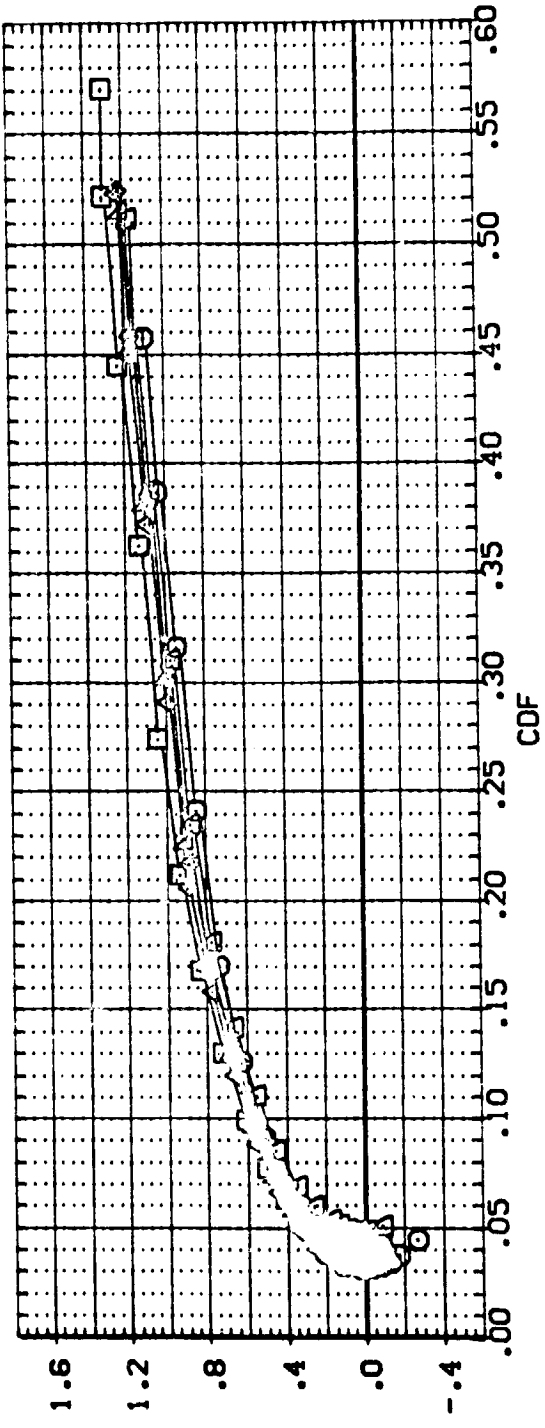
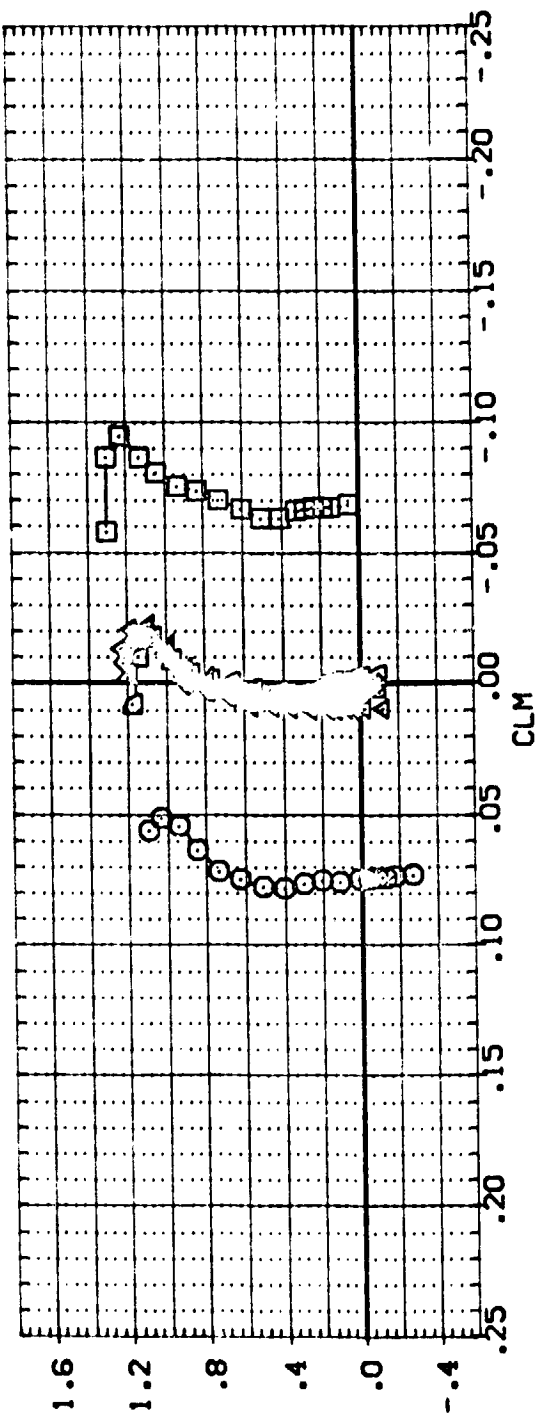


AILRON	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
-7.500	-7.500	.250	4.000	SREF 4.4119 SQ.FT.
-7.500	7.500	.250	4.000	LREF 19.2998 INCHES
-10.000	.000	.250	4.000	BREF 37.9319 INCHES
5.000	.000	.250	4.000	XMRP 49.5974 INCHES
10.000	.000	.250	4.000	YMRP .0000 INCHES
15.000	.000	.250	4.000	ZMRP 16.2000 INCHES
				SCALE .0405



AILRON EFFECTIVENESS, INBD ABES MOVED FWD, OUTBD AFT .25C NACELLE LENGTH(4 NAC)  
 (A)MACH = .20  
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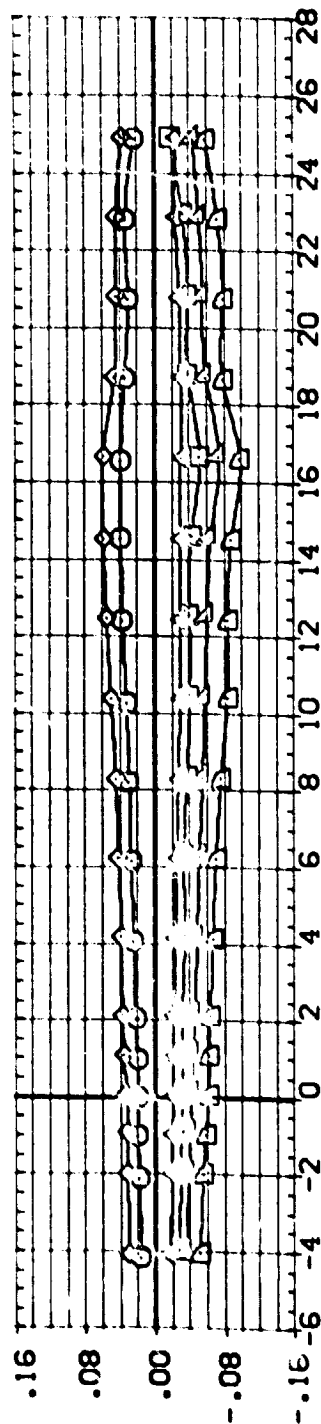
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	AILERON	ELEVON	NACA/L	LIP	REFERENCE INFORMATION
[ADN085]	NR.701.0405	088 B16C507E J3367E 18VX10	-7.500	-7.500	.250	4.000	SREF 4.4113 50.171
[ADN084]	NR.701.0405	073 B16C507E J3367E 18VX10	-7.500	7.500	.250	4.000	LREF 19.2939 100.25
[ADN083]	NR.701.0405	088 B16C507E J3367E 18VX10	-10.000	7.500	.250	4.000	BREF 37.9549 100.25
[ADN082]	NR.701.0405	088 B16C507E J3367E 18VX10	-10.000	0.000	.250	4.000	XREF 43.5974 100.25
[ADN081]	NR.701.0405	088 B16C507E J3367E 18VX10	-10.000	0.000	.250	4.000	YREF 16.2000 100.25
[ADN080]	NR.701.0405	088 B16C507E J3367E 18VX10	-10.000	0.000	.250	4.000	ZREF 16.2000 100.25
[ADN079]	NR.701.0405	088 B16C507E J3367E 18VX10	-10.000	0.000	.250	4.000	SCALE .0405



AILERON EFFECTIVENESS, INBD ABES MOVED FWD, OUTBD AFT .25C NACELLE LENGTH(4 NAC)

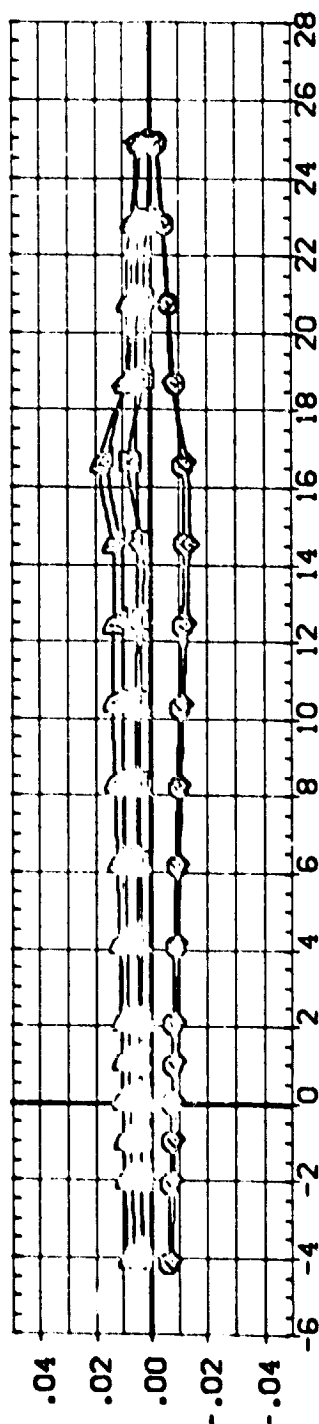
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	NACVAL	LIP	REFERENCE INFORMATION	SO. FT.	
(BD-025)	NR.701.0405 093 B18C507F1J3V87E18V5X10	-7.500	-7.500	.250	4.000	SREF	4.4119	
(BD-024)	NR.701.0405 093 B18C507F1J3V87E18V5X10	-7.500	7.500	.250	4.000	LREF	19.2999	
(BD-022)	NR.701.0405 093 B18C507F1J3V87E18V5X10	-10.000	.000	.250	4.000	BREF	37.9319	
(BD-019)	NR.701.0405 093 B18C507F1J3V87E18V5X10	5.000	.000	.250	4.000	XREF	43.5974	
(BD-023)	NR.701.0405 093 B18C507F1J3V87E18V5X10	10.000	.000	.250	4.000	YREF	.0000	
(BD-023)	NR.701.0405 093 B18C507F1J3V87E18V5X10	15.000	.000	.250	4.000	ZREF	16.2000	
						SCALE	.0405	
							SCALE	.0405



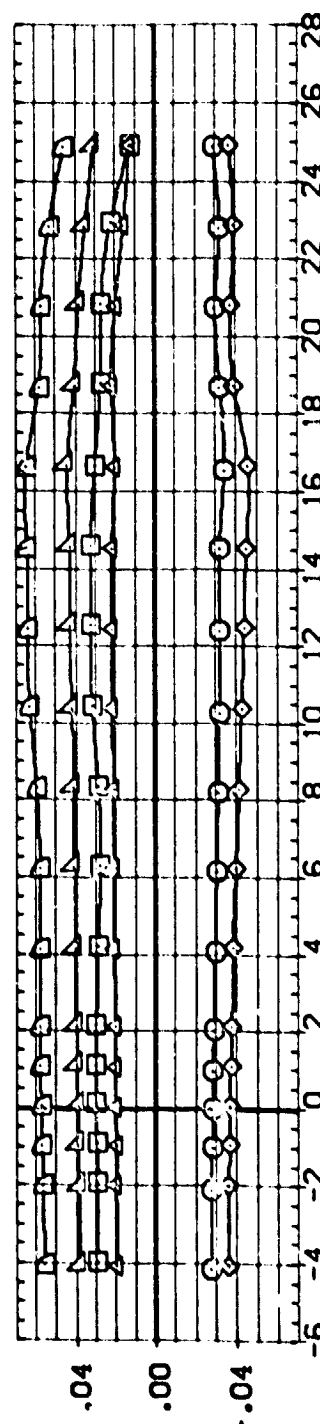
CY

ALPHA



CYN

ALPHA



CBL

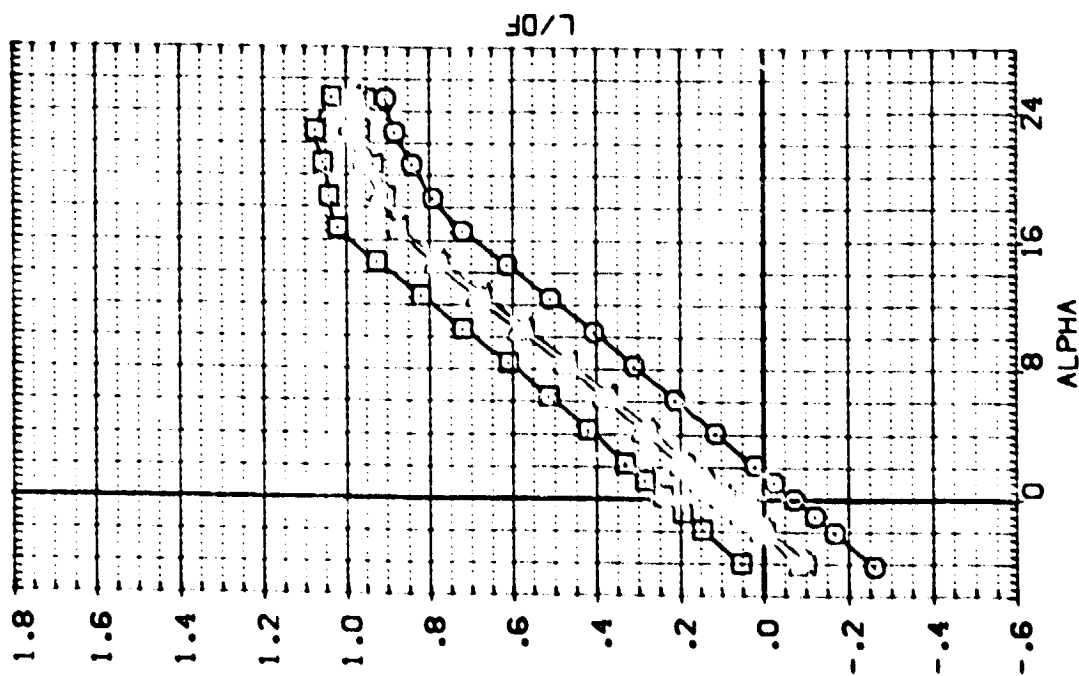
ALPHA

AILERON EFFECTIVENESS, INBD ABES MOVED FWD, OUTBD AFT .25( NACELLE LENGTH(4 NAC)

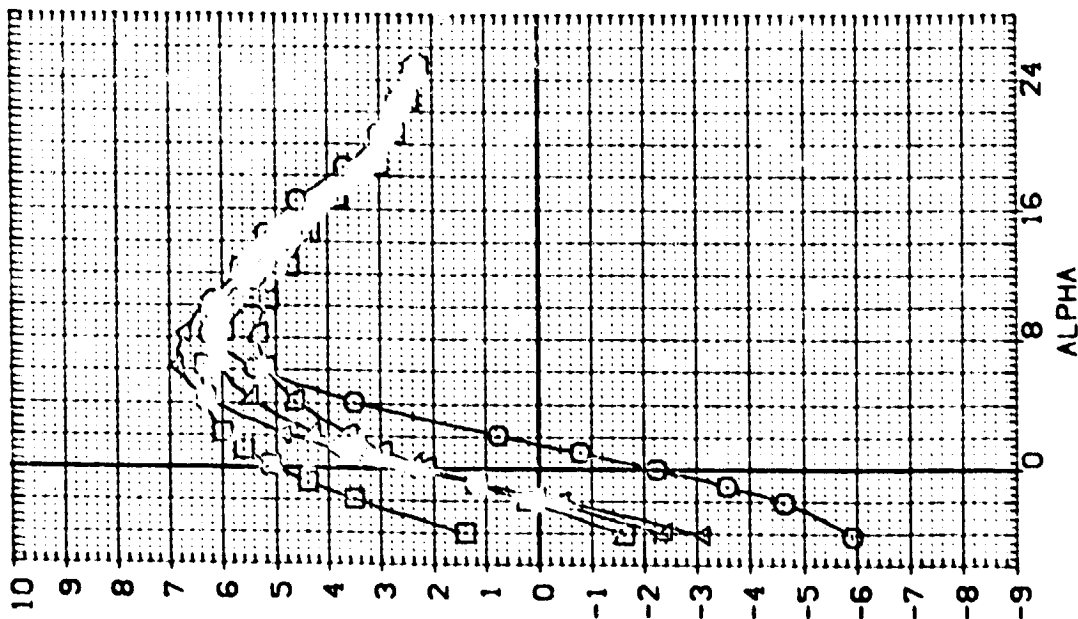
(A)MACH = .20

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 [ADN173] Q NP.701.0405 0P3 B16C307E14V87E18V5X10  
 [ADN178] Q NP.701.0405 0P3 B16C307E14V87E18V5X10  
 [ADN173] Q NP.701.0405 0P3 B16C307E14V87E18V5X10  
 [ADN178] Q NP.701.0405 0P3 B16C307E14V87E18V5X10  
 [ADN173] Q NP.701.0405 0P3 B16C307E14V87E18V5X10



AILERON ELEVON MAC/A L/P REFERENCE INFORMATION  
 -7.500 -7.500 .490 1.000 SREF 4.4119 50.FT.  
 7.500 7.500 .490 1.000 LREF 19.2799 10.FT.  
 5.000 .000 .490 1.000 BREF 37.9043 10.FT.  
 .000 .000 .490 1.000 WREF 43.5974 10.FT.  
 15.000 .000 .490 1.000 WREF 16.2000 10.FT.  
 SCALE .0405 SCALE

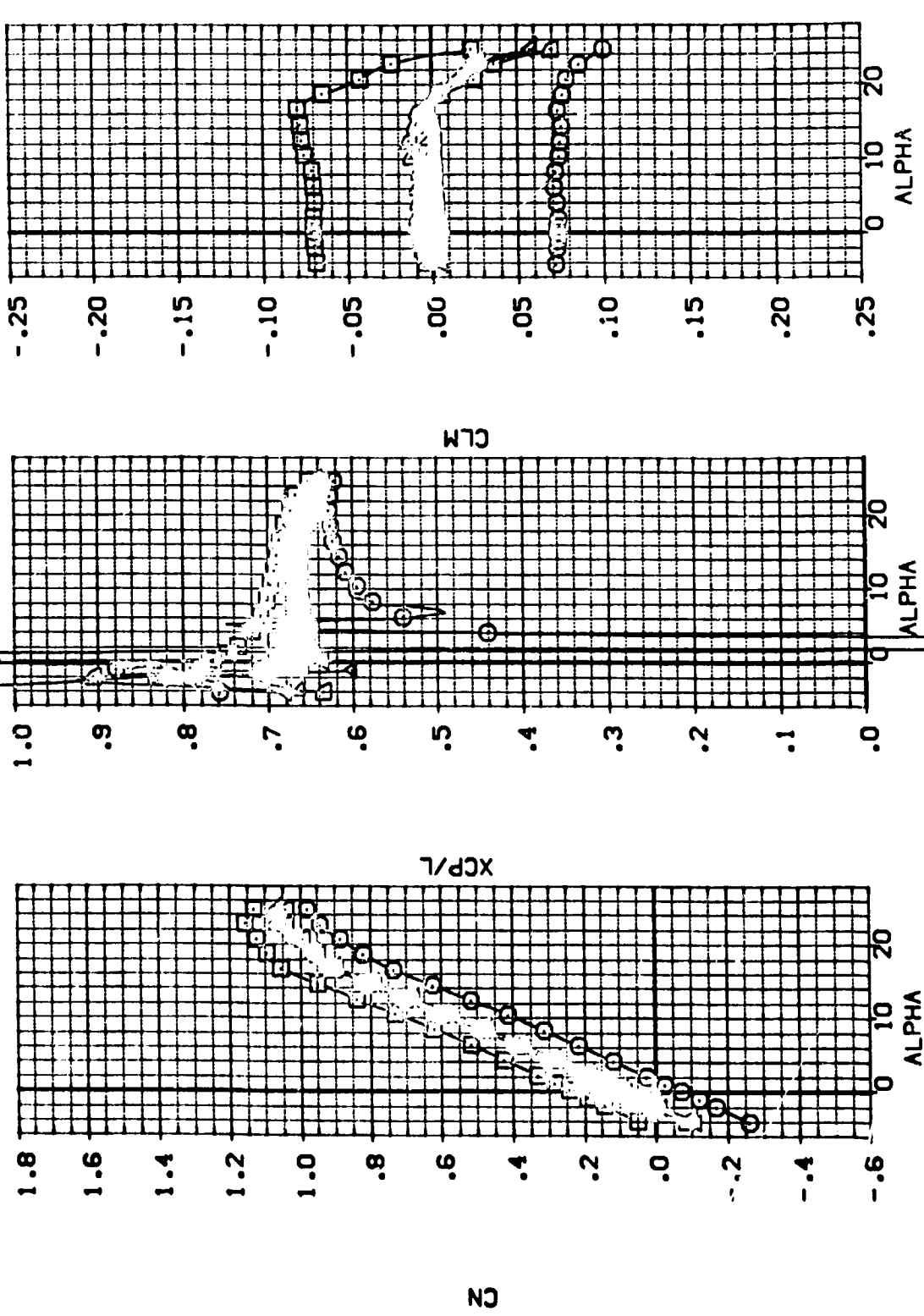


AILERON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20



DATA SET SYMBOL	LOGS/LOCATION	DESCRIPTION	AILERON	ELEVON	N/CYL	LIP	REFERENCE INFORMATION
(ADN178)	N8.701.0405	088 B16CS07F144V87E18V5X10	-7.500	-7.500	.490	4.000	SREF 4.4119 50.41
(ADN178)	N8.701.0405	088 B16CS07F144V87E18V5X10	7.500	7.500	.490	4.000	UREF 19.2389 100.45
(ADN178)	N8.701.0405	088 B16CS07F144V87E18V5X10	5.000	.000	.490	4.000	UREF 37.9349 100.45
(ADN178)	N8.701.0405	088 B16CS07F144V87E18V5X10	10.000	.000	.490	4.000	UREF 43.5974 100.45
(ADN177)	N8.701.0405	088 B16CS07F144V87E18V5X10	15.000	.000	.490	4.000	UREF 16.2000 100.45
							SCALE .0405



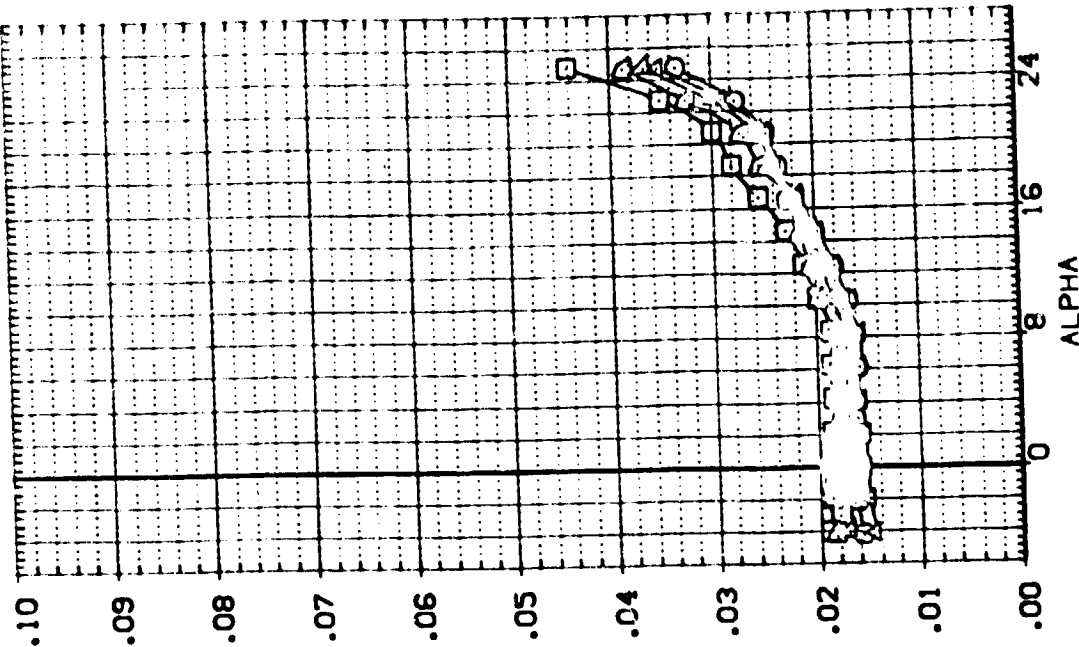
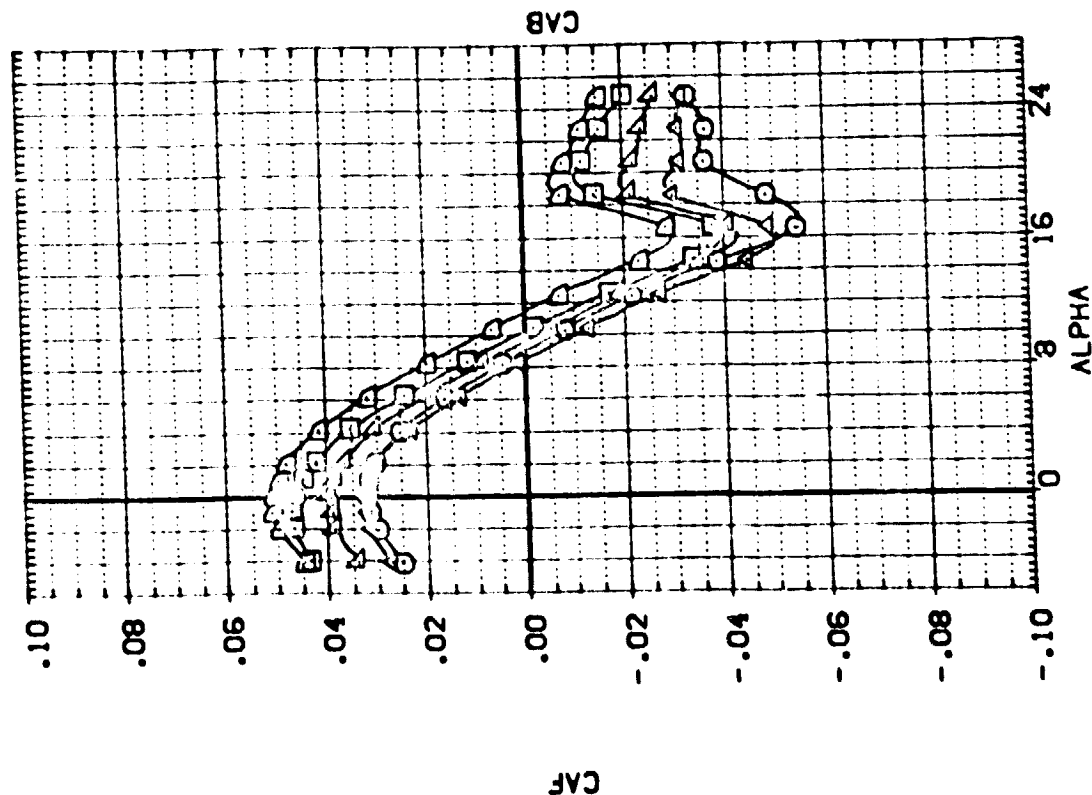
AILERON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

DATA SET STRID  
[ADM:75]  
[ADM:76]  
[ADM:77]

CONFIGURATION DESCRIPTION  
NR:701.0405 CRB 816C507F 14.487E 18.5X10  
NR:701.0405 CRB 816C507F 14.487E 18.5X10  
NR:701.0405 CRB 816C507F 14.487E 18.5X10  
NR:701.0405 CRB 816C507F 14.487E 18.5X10  
NR:701.0405 CRB 816C507F 14.487E 18.5X10

ALPHA ON ELEVON MAXVAL LIP REFERENCE INCREASATION  
-7.500 -7.500 .490 1.000 CRB 4.4119 22.671  
7.500 7.500 .490 1.000 LREF 19.2998 19.2998  
5.000 5.000 .490 1.000 GREF 37.1213 37.1213  
10.000 10.000 .490 1.000 AREF 43.0071 43.0071  
15.000 15.000 .490 1.000 MREF 16.2000 16.2000  
SCALE SCALE .0405 .0405



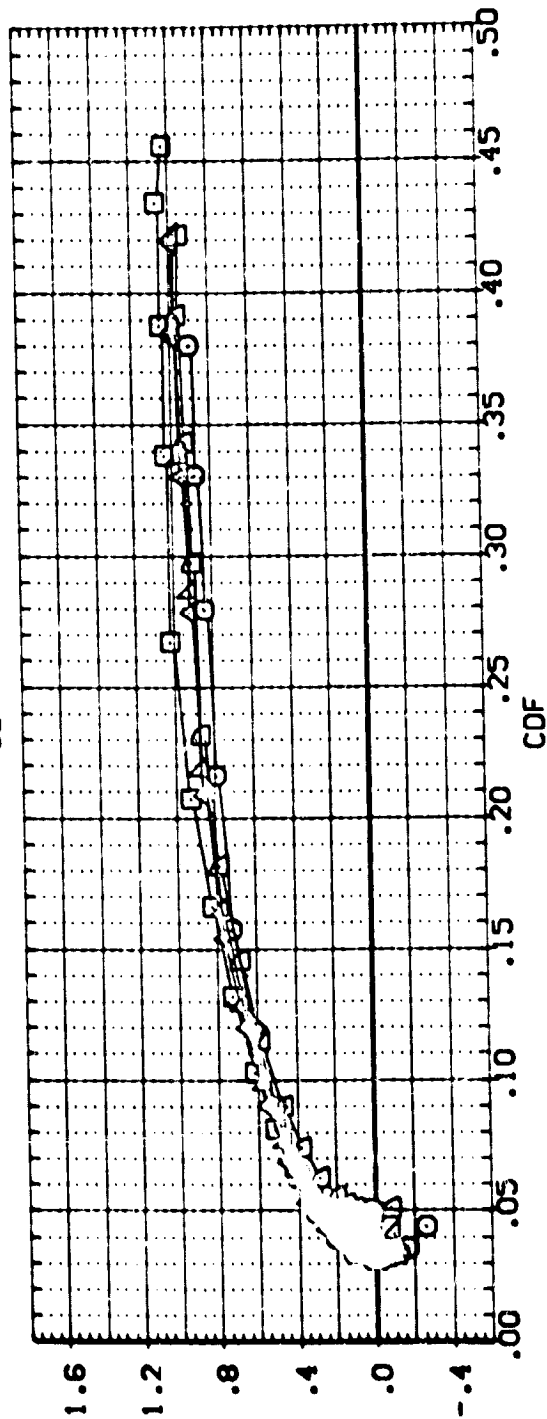
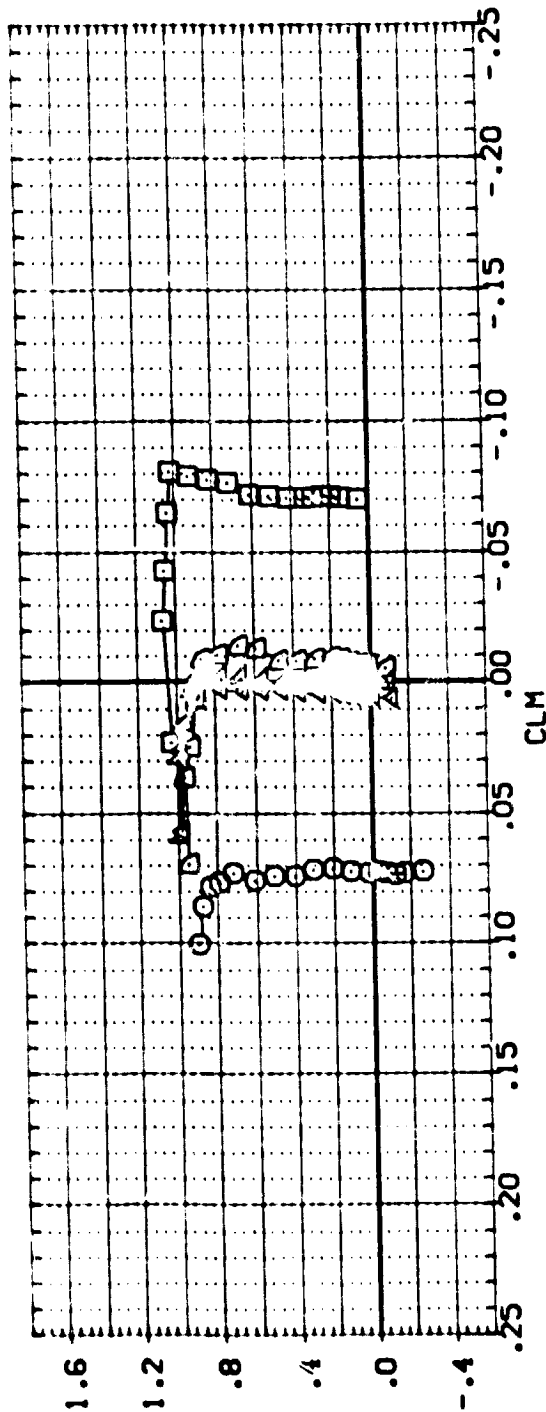
AILERON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

DATA SET SYMBOL	CONF	DURATION	DESCRIPTION	ALIPX	ELEVON	NACAL	LIP	REFERENCE INFORMATION	SCALE
(ADM175)	NR	.701	.0405	098	816	507F	144	WTE	18V5X10
(ADM178)	NR	.701	.0405	098	816	507F	144	WTE	18V5X10
(ADM173)	NR	.701	.0405	098	816	507F	144	WTE	18V5X10
(ADM176)	NR	.701	.0405	098	816	507F	144	WTE	18V5X10
(ADM177)	NR	.701	.0405	098	816	507F	144	WTE	18V5X10

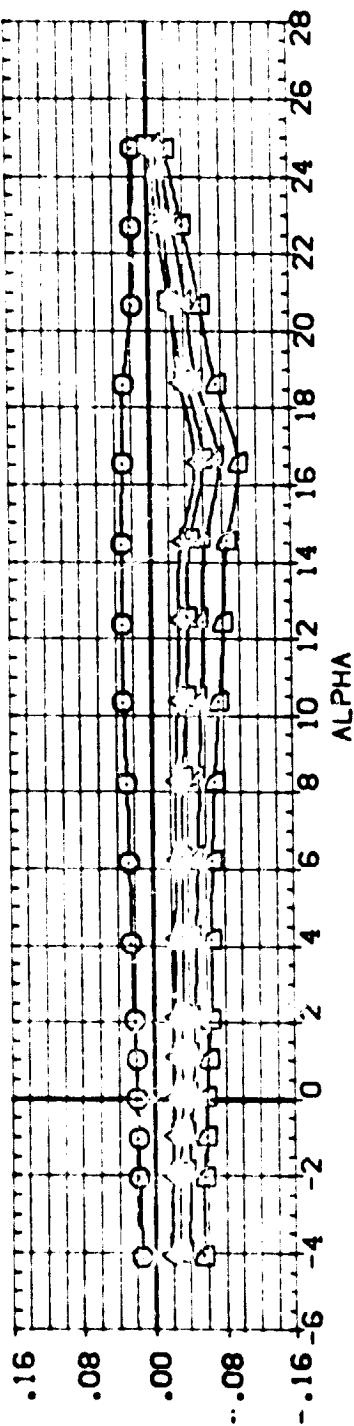
REFERENCE INFORMATION	SCALE
SREF	4.4119
LREF	19.2369
BREF	37.5949
XREF	43.5074
YREF	16.0000
ZREF	16.2000
SCALE	.0405



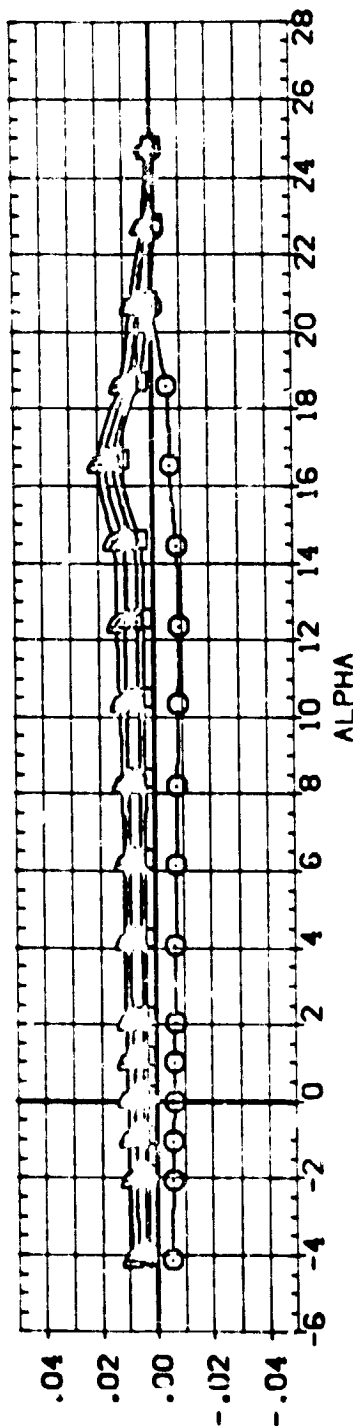
AILERON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

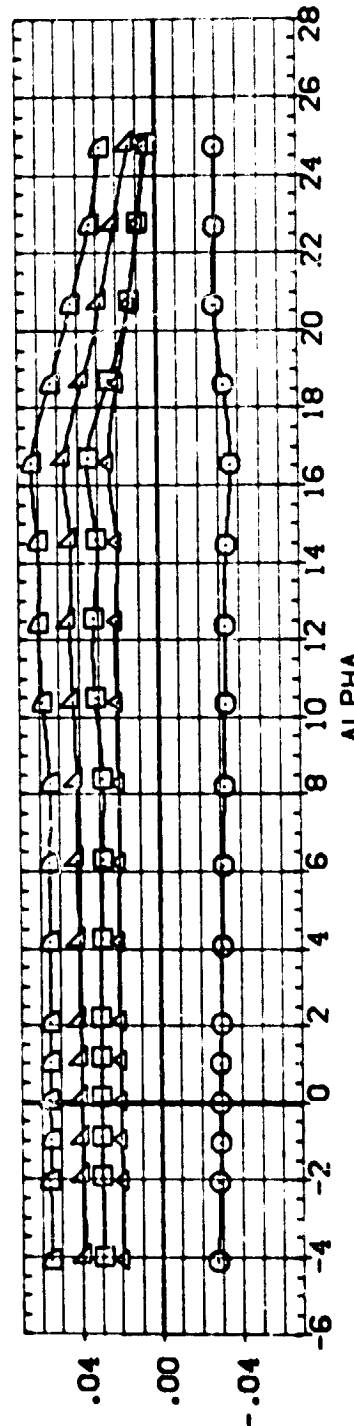
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		AUXON		ELEVON		INCLIN		LIP		REFERENCE INFORMATION	
(100179)	NR.701.0405	088	B18C507E	14V87E	18V5X10	-7.500	7.500	.490	4.000	SPREF	4.4119	50.FT.	
(100178)	NR.701.0405	088	B18C507E	14V87E	18V5X10	7.500	7.500	.490	4.000	LRPF	19.2698	INCHES	
(100177)	NR.701.0405	088	B18C507E	14V87E	18V5X10	5.000	5.000	.490	4.000	BRPF	37.5349	INCHES	
(100176)	NR.701.0405	088	B18C507E	14V87E	18V5X10	10.000	10.000	.490	4.000	YREF	43.5374	INCHES	
(100175)	NR.701.0405	088	B18C507E	14V87E	18V5X10	15.000	15.000	.490	4.000	ZREF	16.2000	INCHES	
										SCALE	.0405	SCALE	



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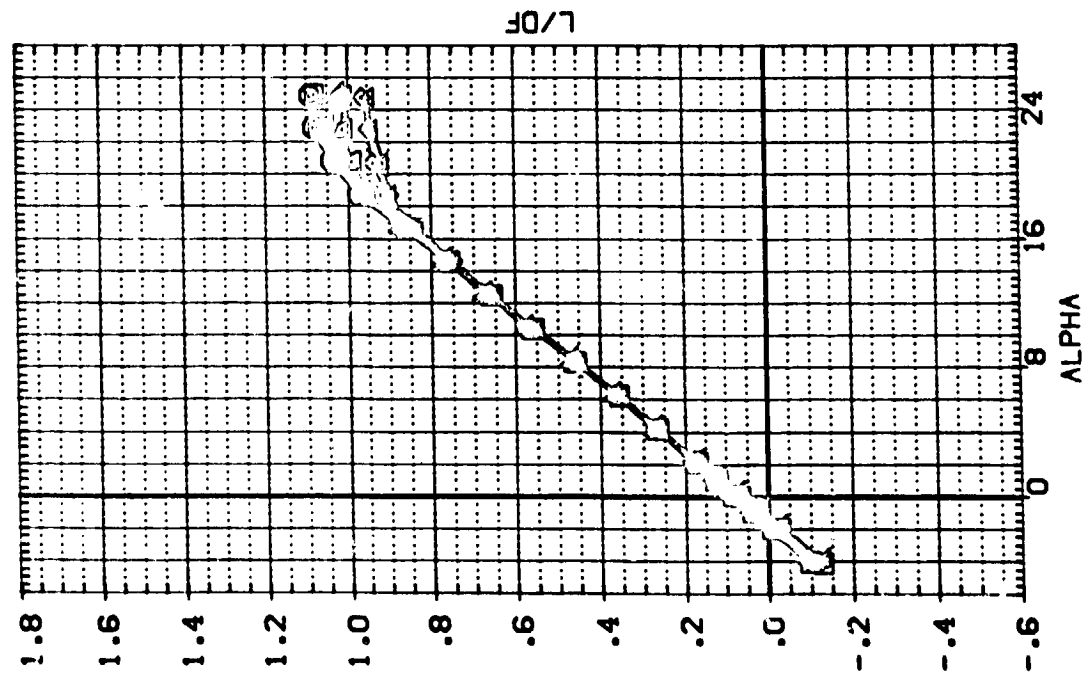
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AILERON EFFECTIVENESS. 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

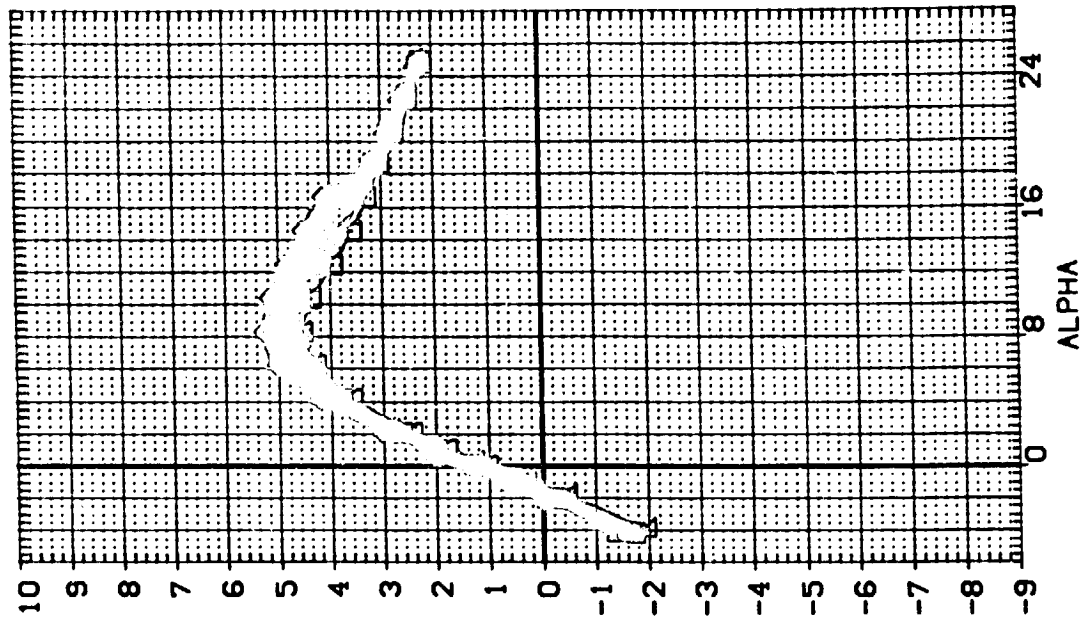
DATA SET SYMBOL CONFIGURATION DESCRIPTION

[ADG43]	NR.701.0405	088	B16CS07F1J5G12V87V5X10
[ADG52]	NR.701.0405	088	B16CS07F1J5G12V87E18V5X10
[ADG57]	NR.701.0405	088	B16CS07F1J5G12V37V5X10
[ADG63]	NR.701.0405	088	B16CS07F1J5G12V37E19V5X10
[ADG31]	NR.701.0405	088	B16CS07F1J7G12V87V5X10
[ADG36]	NR.701.0405	088	B16CS07F1J7G12V87E18V5X10



AILERON ELEVON MACVAL LIP REFERENCE INFORMATION SQ.FT. INCHES

AILERON	ELEVON	MACVAL	LIP	SREF	4.4119	50.41
.000	.000	.000	4.000	LRFP	19.2893	19.29
10.000	.000	.000	4.000	BRFP	37.5343	37.53
10.000	.000	.490	4.000	XRFP	43.5574	43.56
10.000	.000	.000	4.000	YRFP	.0000	.00
10.000	.000	.000	4.000	ZRFP	16.2000	16.20
10.000	.000	.000	4.000	SCALE	.0405	.04



AILERON EFFECTIVENESS (6 NACELLES)

CA/MACH = .20

CONFIGURATION	DESCRIPTION
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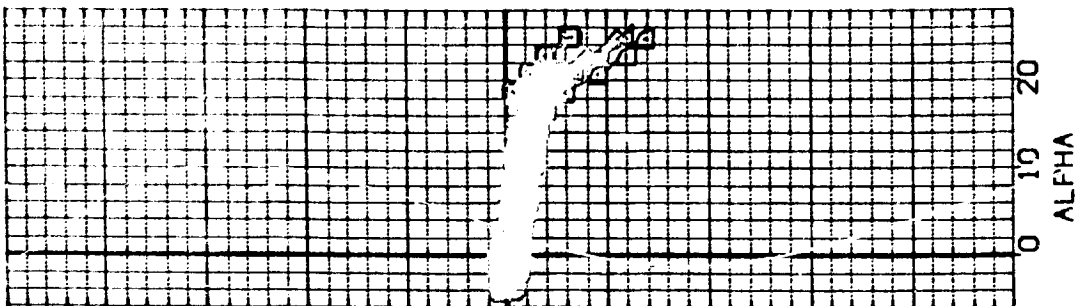
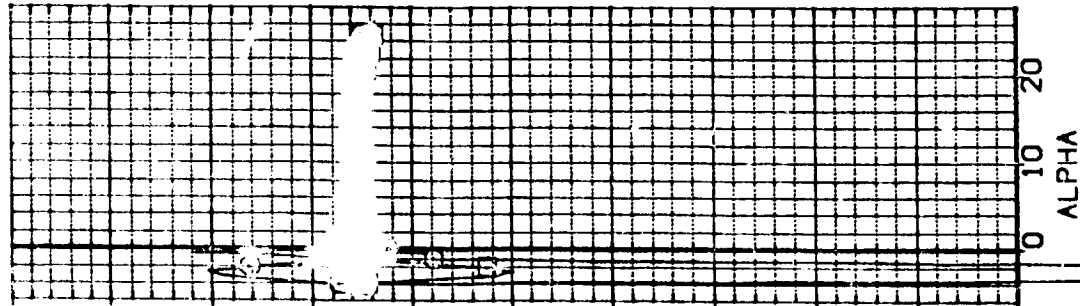
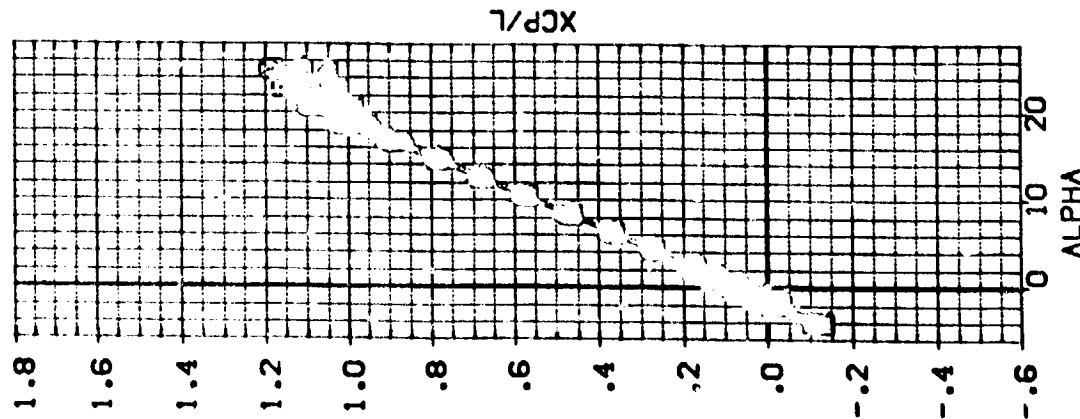
1 2V87E16V5X10  
1 2V87E16V5X10  
1 2V87E16V5X10  
1 2V87E16V5X10  
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1 2V87E16V5X10

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3142  
3143  
3144  
3145  
3146

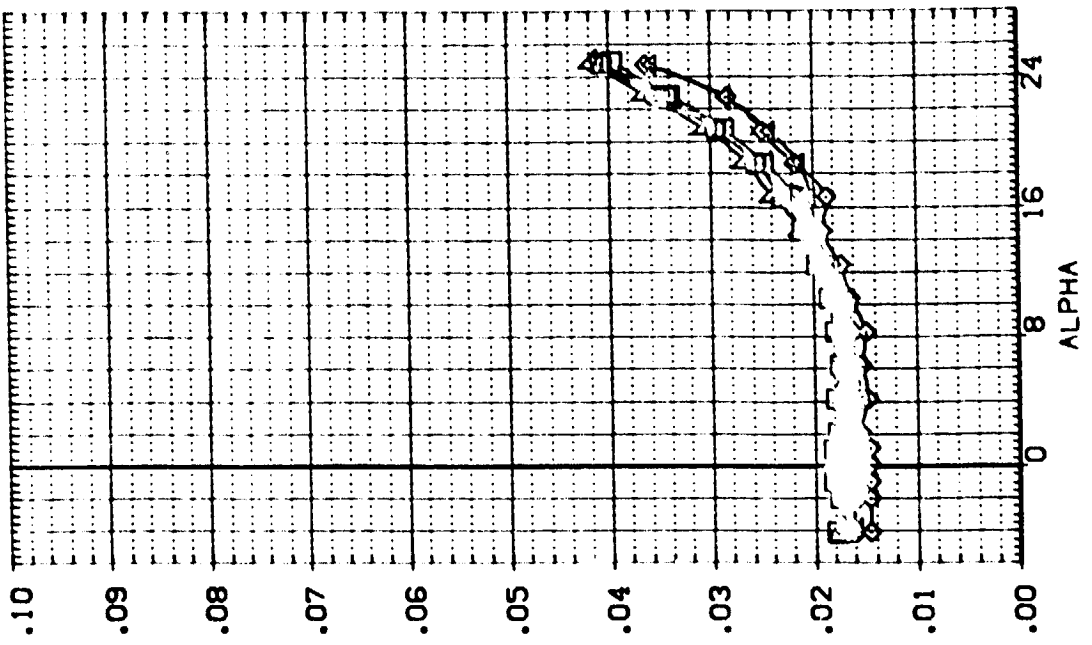
INCREASING	50 FT.	INCHES	INCHES	INCHES	INCHES	SCALE
4113						
2998						
2049						
1574						
1000						
2000						
0405						



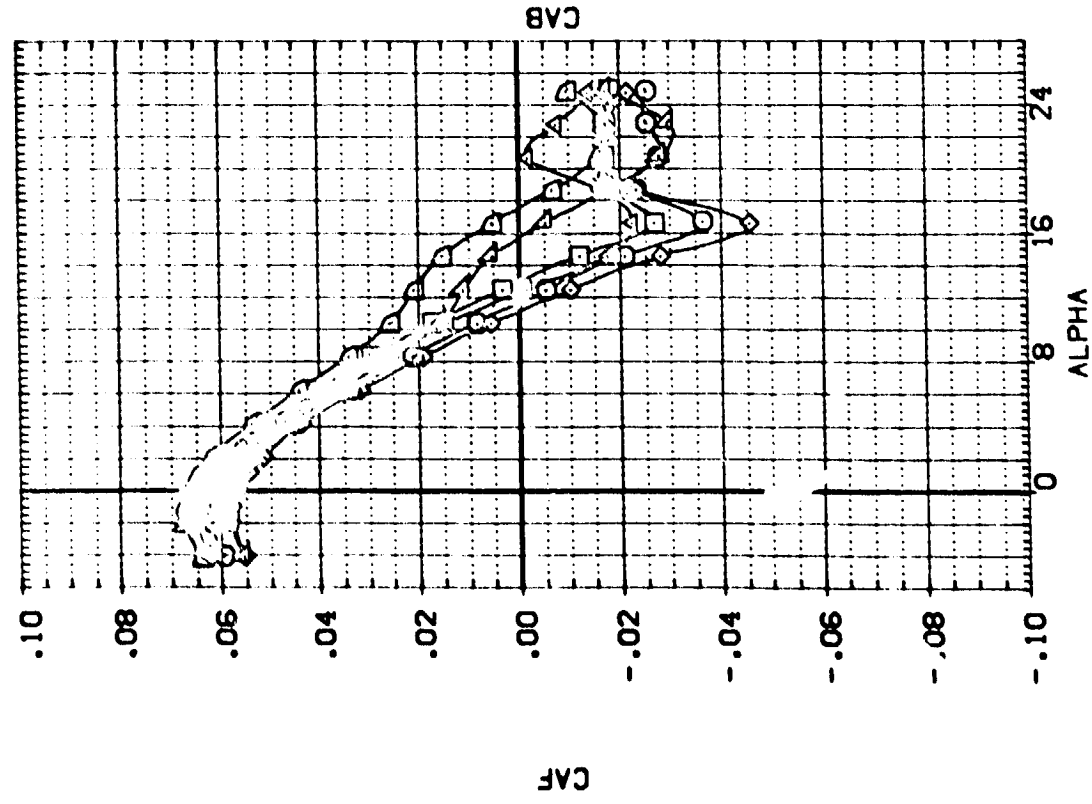
## AILERON EFFECTIVENESS (6 NACELLES)

$$[A]_{MACH} = .20$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NACA	LIP	REFERENCE INFORMATION	SO. FT.
(AD-G43)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.000	4.000	SREF	4.4119
(AD-G62)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.000	4.000	LREF	19.2339
(AD-G67)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.490	4.000	BREF	37.9319
(AD-G63)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.000	4.000	XREF	43.5974
(AD-G01)	NP-701-0405 038 B16C507F 1.761 2.67E 18V5X10	.000	.000	4.000	ZREF	16.2000
(AD-G36)	NP-701-0405 038 B16C507F 1.761 2.67E 18V5X10	.000	.000	4.000	SCALE	.0405



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	NACA	LIP	REFERENCE INFORMATION	SO. FT.
(AD-G43)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.000	4.000	SREF	4.4119
(AD-G62)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.000	4.000	LREF	19.2339
(AD-G67)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.490	4.000	BREF	37.9319
(AD-G63)	NP-701-0405 038 B16C507F 1.561 2.67E 18V5X10	.000	.000	4.000	XREF	43.5974
(AD-G01)	NP-701-0405 038 B16C507F 1.761 2.67E 18V5X10	.000	.000	4.000	ZREF	16.2000
(AD-G36)	NP-701-0405 038 B16C507F 1.761 2.67E 18V5X10	.000	.000	4.000	SCALE	.0405



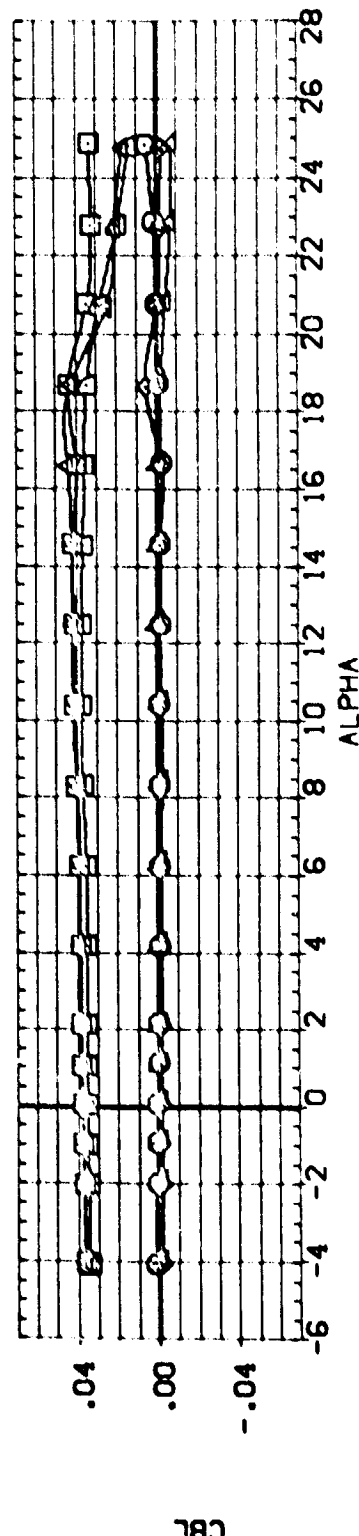
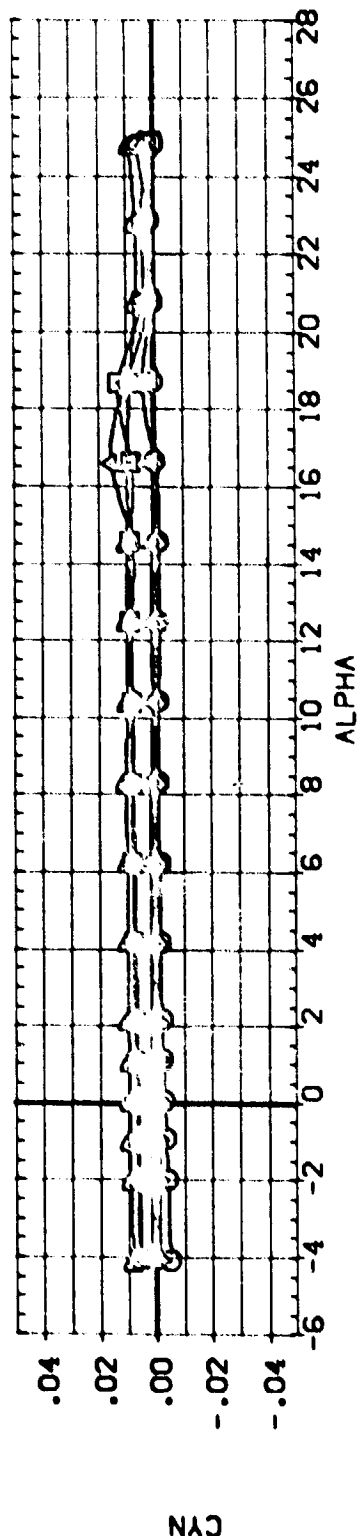
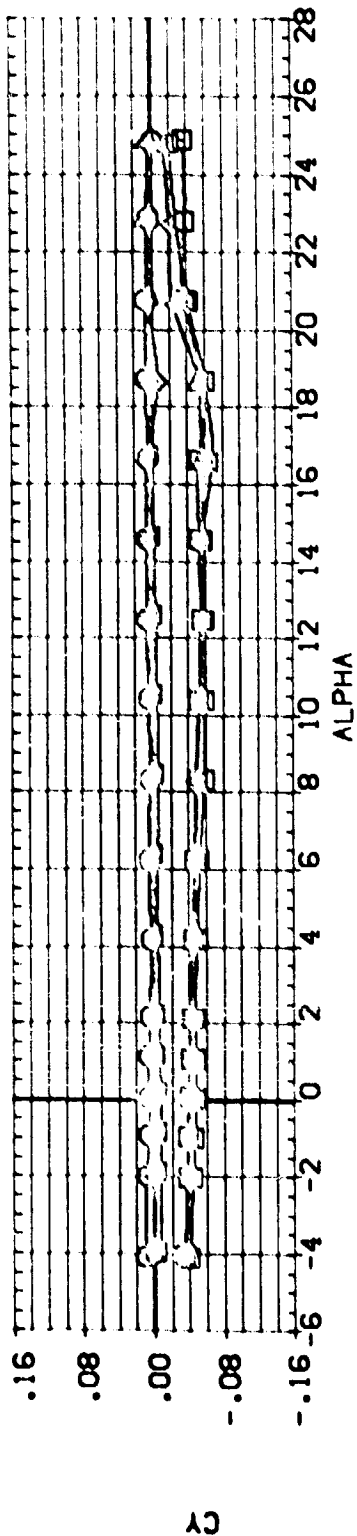
AILERON EFFECTIVENESS (6 NACELLES)

(A)MACH = .20





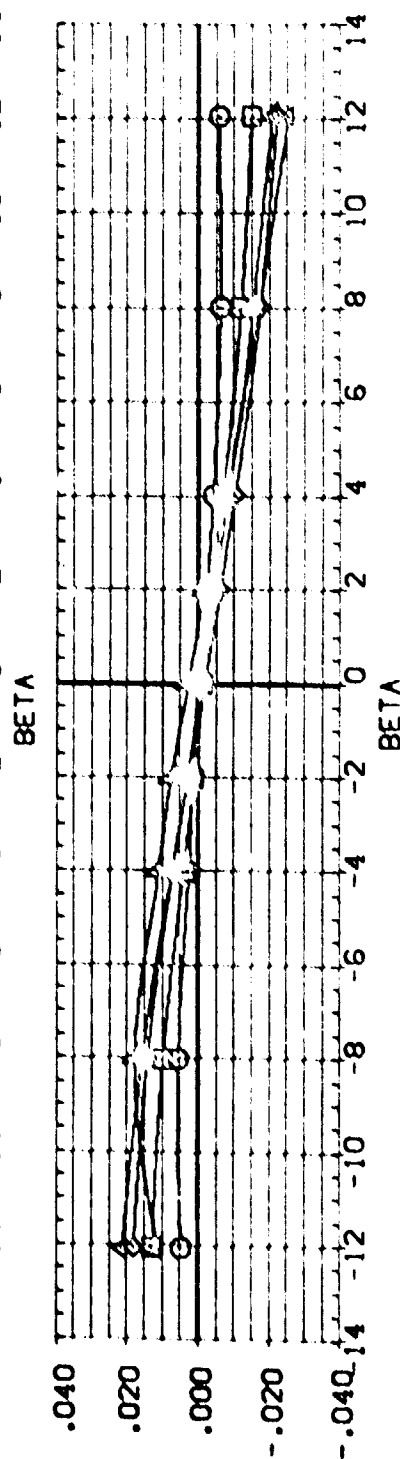
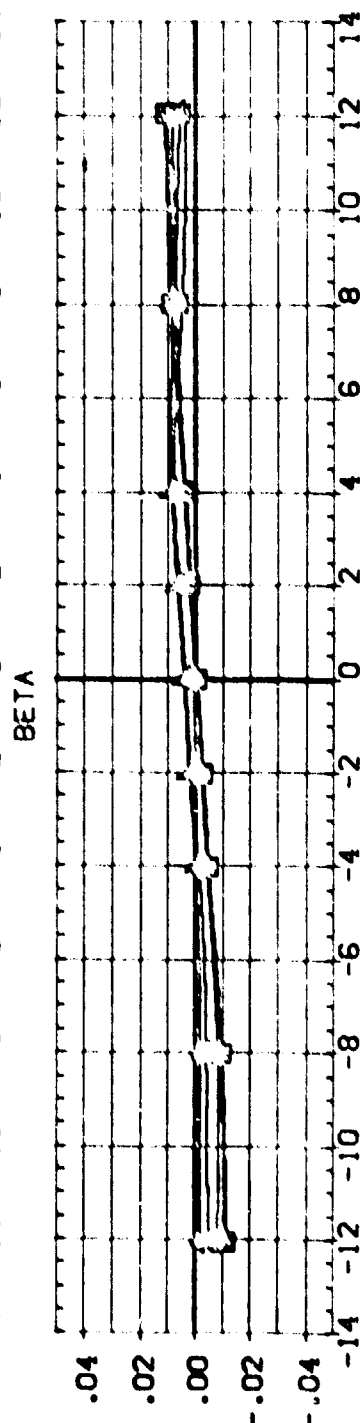
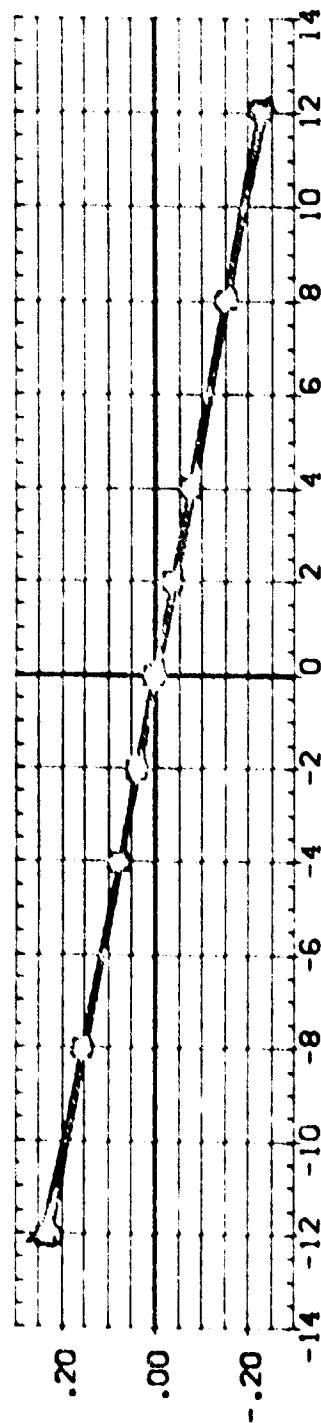
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILERON	ELEVON	NACELLE	LIP	REFERENCE INFORMATION
(BD 043)	1P.701.0405 0P8 81.6507K 4501 2467K18/SX10	.000	.000	.000	4.000	SREF 4.4119 50.FT. IN-OES
(BD 052)	1P.701.0405 0P8 81.6507K 4501 2467K18/SX10	10.000	.000	.000	4.000	LREF 19.2339 IN-OES
(BD 057)	1P.701.0405 0P8 81.6507K 4501 2467K18/SX10	.000	.000	.490	4.000	BREF 37.9349 IN-OES
(BD 063)	1P.701.0405 0P8 81.6507K 4501 2467K18/SX10	10.000	.000	.490	4.000	XREF 43.9374 IN-OES
(BD 081)	1P.701.0405 0P8 81.6507K 4501 2467K18/SX10	.000	.000	.000	4.000	YREF 16.0000 IN-OES
(BD 086)	1P.701.0405 0P8 81.6507K 4501 2467K18/SX10	10.000	.000	.000	4.000	ZREF 16.0000 IN-OES
					SCALE	SCALE



AILERON EFFECTIVENESS (6 NACELLES)

CA/MACH = .20

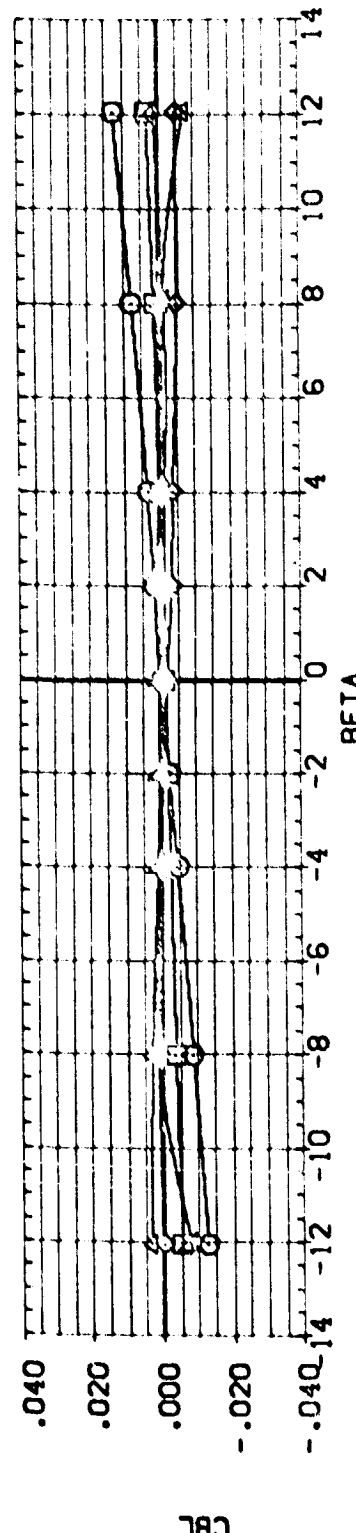
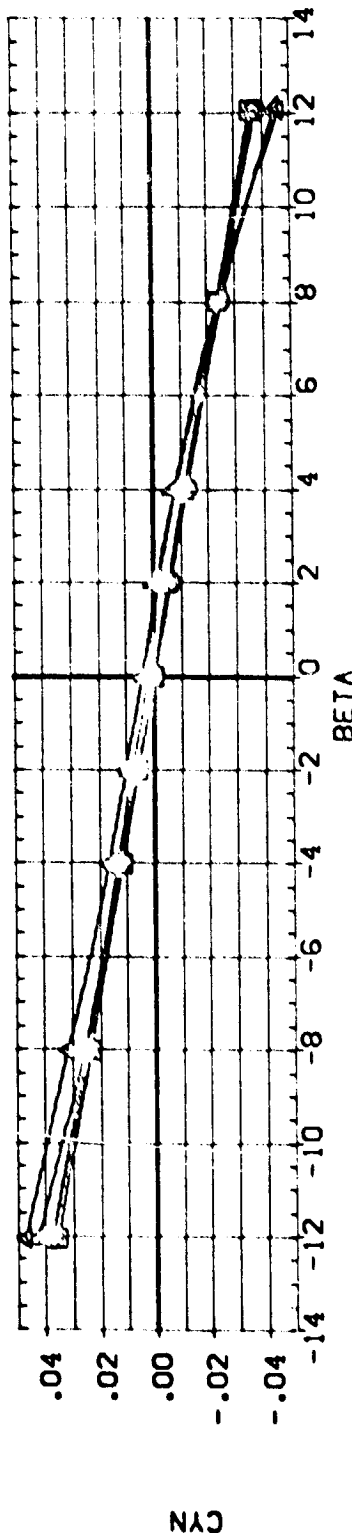
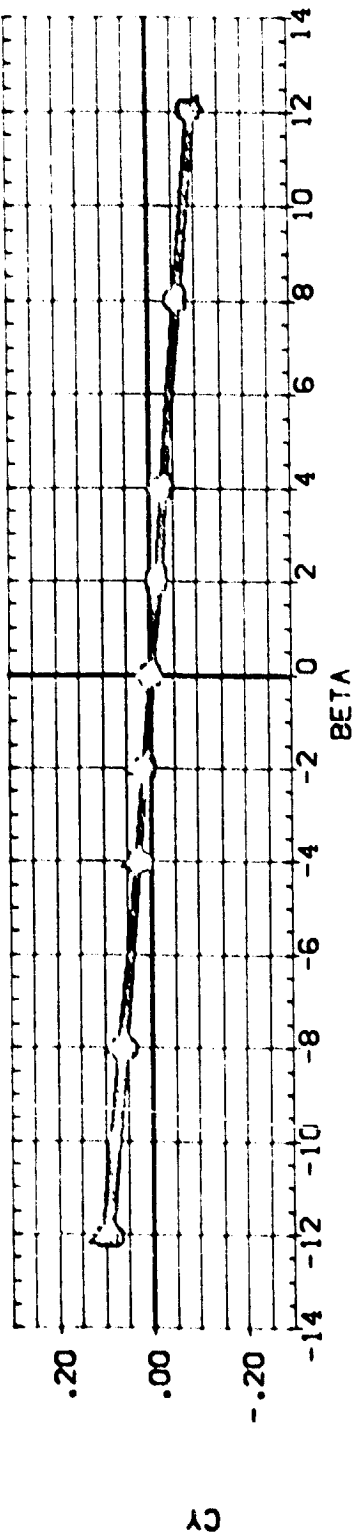
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	ELEVATION	AIRBORNE	B.FLAP	REFERENCE INFORMATION	SO. FT.
(30) 25	19.70	CA25	0.00	.000	.000	-18.000	SREF	4.4112
(30) 26	19.70	CA25	5.000	.000	.000	-18.000	UREF	19.2525
(30) 27	19.70	CA25	10.000	.000	.000	-18.000	BREF	37.5343
(30) 28	19.70	CA25	15.000	.000	.000	-18.000	XREF	43.5374
(30) 29	19.70	CA25	18.000	.000	.000	-18.000	ZREF	16.2000
							SCALE	.0405



LAT-DIRECT. CHARACTERISTICS. ABES OFF

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ALPHA	ELEVON	AILERON	B. FLAP	REFERENCE INFORMATION
[BOA] 54	1P.701	0405 DPB 3:180507E V877/3	.000	.000	.000	-18.000	9REF 4.4119 50. FT.
[BOA] 55	1P.701	0405 DPB 8:180507E V877/3	5.000	.000	.000	-18.000	LREF 19.2929 10-ES
[BOA] 56	1P.701	0405 DPB 8:180507E V877/3	10.000	.000	.000	-18.000	EREF 37.5219 10-ES
[BOA] 57	1P.701	0405 DPB 8:180507E V877/3	15.000	.000	.000	-18.000	XREF 43.5974 10-ES
[BOA] 58	1P.701	0405 DPB 9:180507E V877/3	18.000	.000	.000	-18.000	YREF 16.2000 10-ES
							ZREF .0405 SCALE



LAT.-DIRECT. CHARACTERISTICS, ABES OFF, VERT. TAIL OFF

(A)MACH = .20

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    NACVAL    LIP    B. FLAP    REFERENCE    US ORIENTATION    SQ. FT.    INCHES

(S04C12)    NR 101    0405    0401    B185507E    13.8775X10    .000    .000    4.000    -18.000    97CF    4.4119    50.000

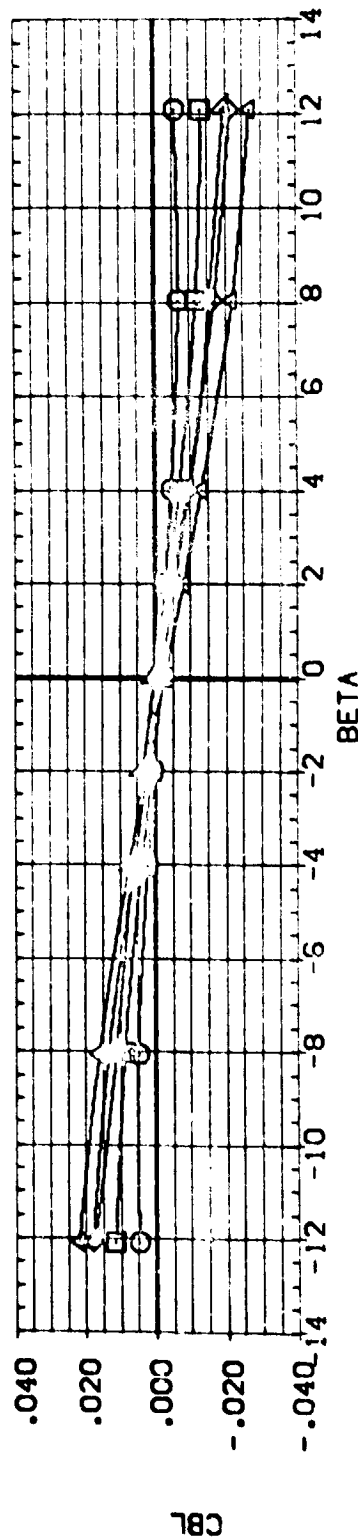
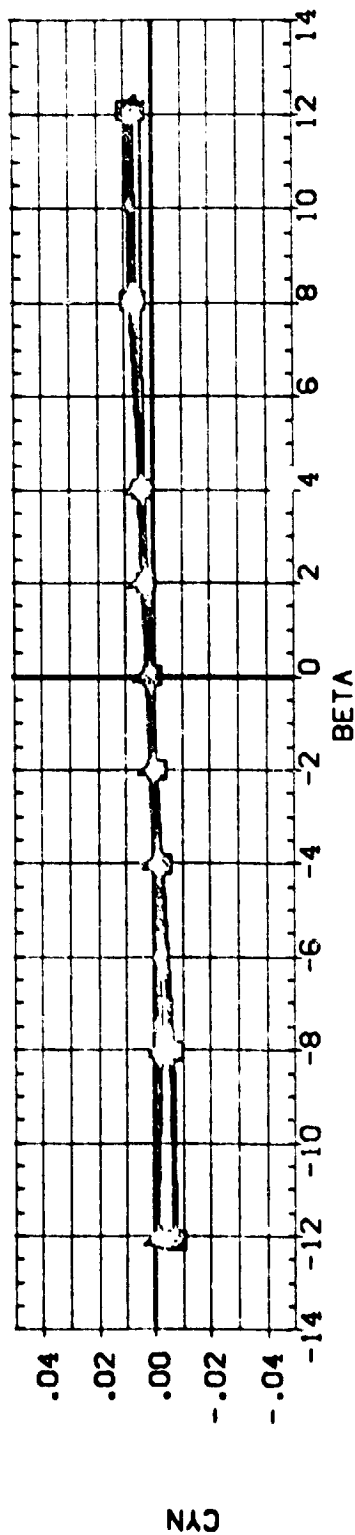
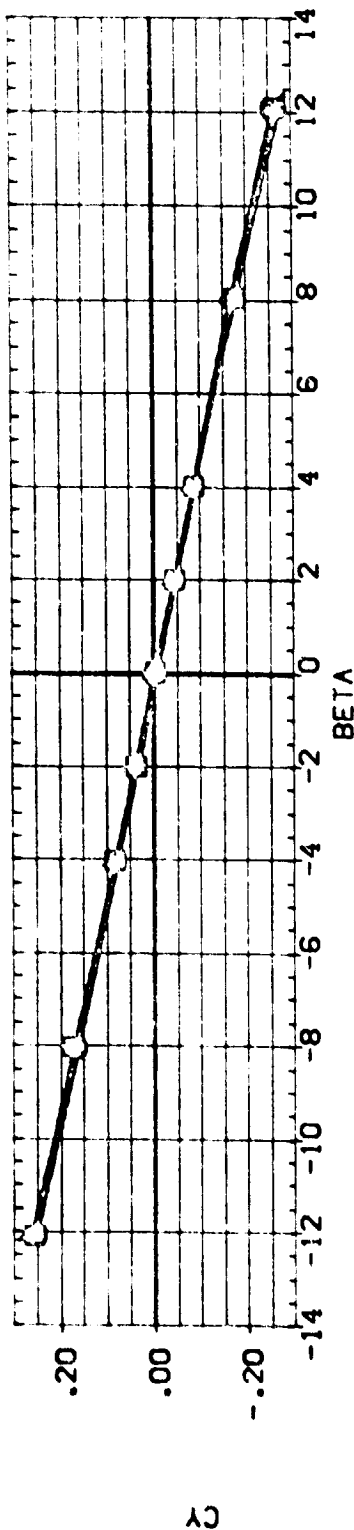
(S04C13)    NR 101    0405    0401    B185507E    13.8775X10    .000    .000    4.000    -18.000    97CF    19.2993    100.000

(S04C14)    NR 101    0405    0401    B185507E    13.8775X10    .000    .000    4.000    -18.000    97CF    37.5373    100.000

(S04C15)    NR 101    0405    0401    B185507E    13.8775X10    .000    .000    4.000    -18.000    97CF    43.5074    100.000

(S04C16)    NR 101    0405    0401    B185507E    13.8775X10    .000    .000    4.000    -18.000    97CF    16.2000    100.000

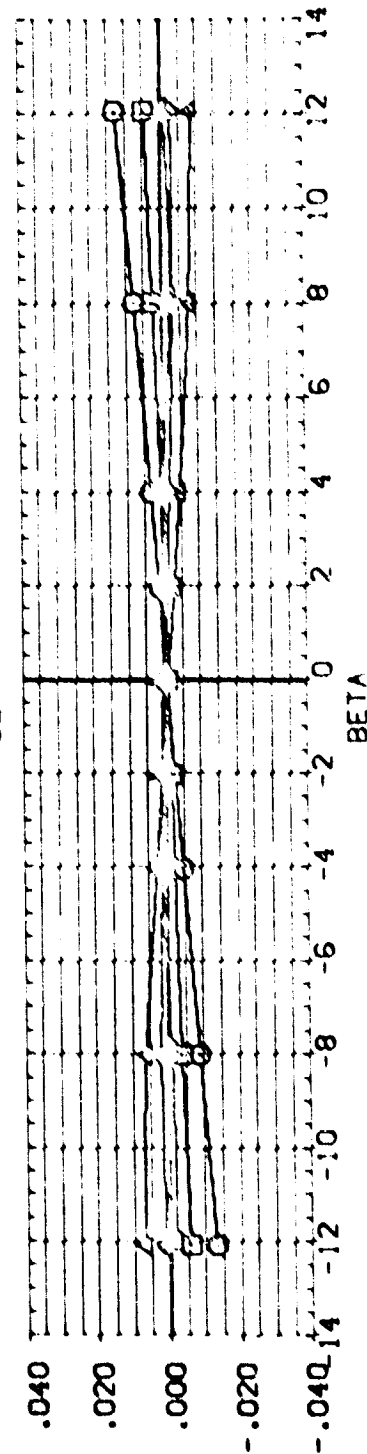
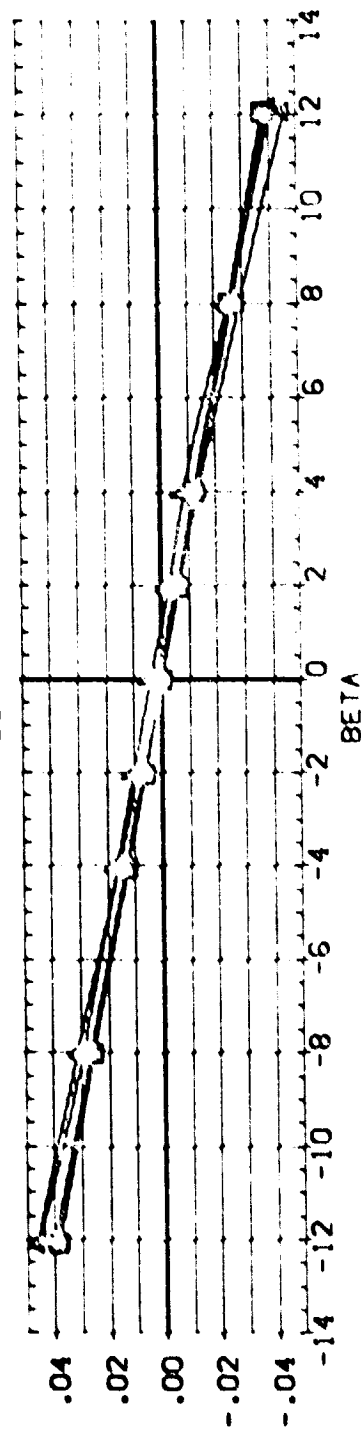
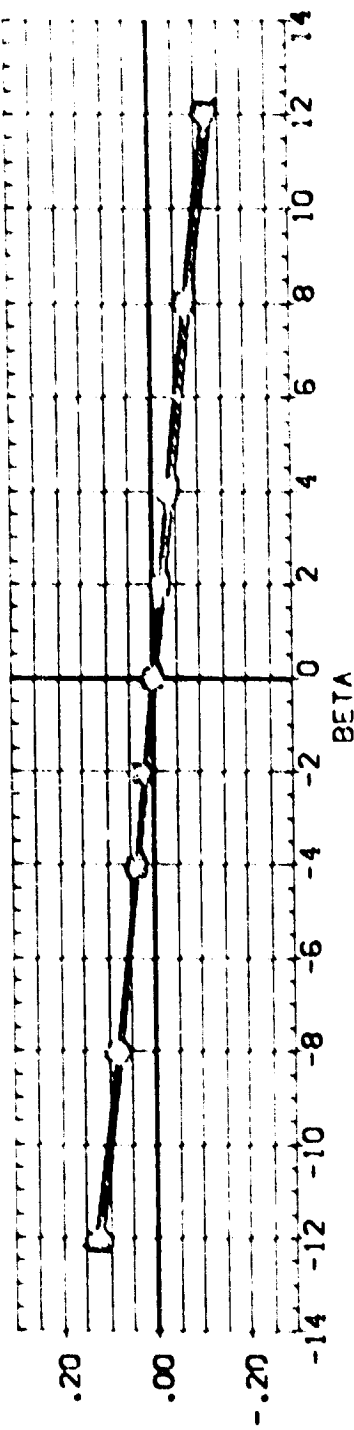
SCALE    .0405



LAT.-DIRECT. CHARACTERISTICS, BASELINE ABES LOCATION (4 NACELLES)

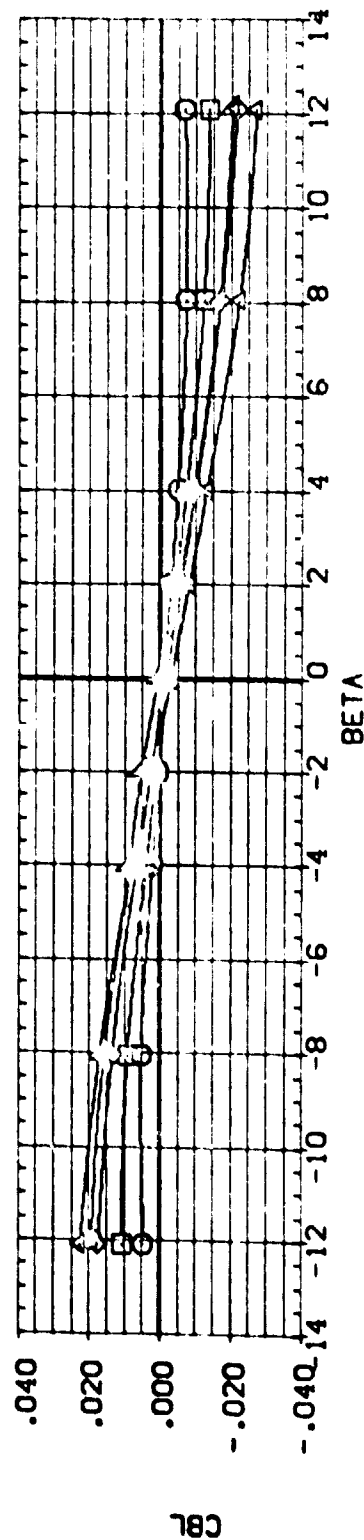
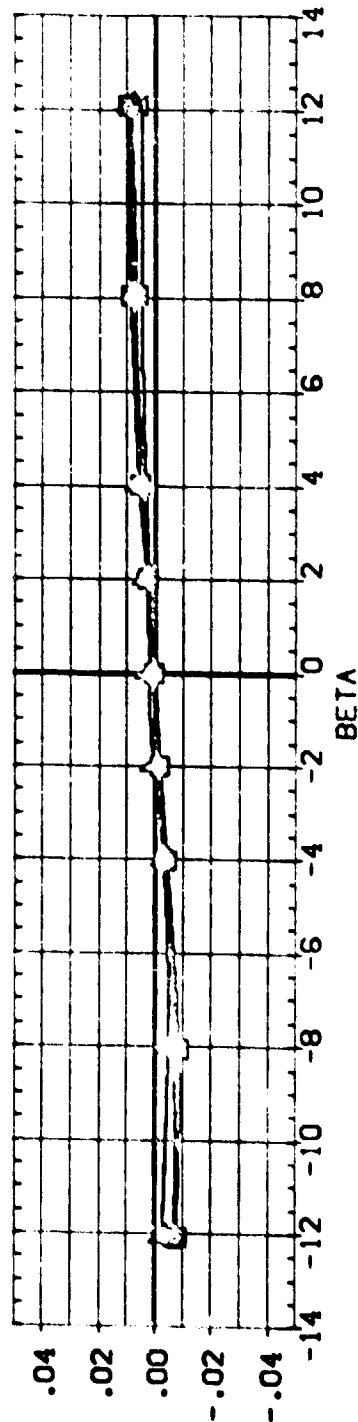
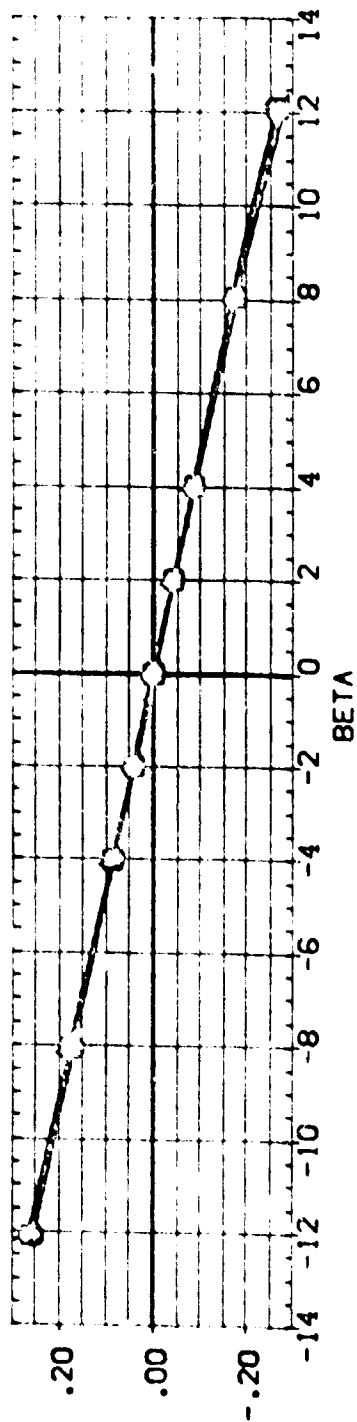
CALMACH = .20

DATA SET SYMBOL	DATE	TIME	DESCRIPTION	ALPHA	WETA	LIP	3-FLIP	REFERENCE IN DEVIATION	SCALE
BC-3	10-75	0425	008 B.65507E	.000	.000	.000	-8.000	5EF	4.419
BC-4	10-75	0425	008 B.65507E	.000	.000	.000	-8.000	5EF	19.7443
BC-5	10-75	0425	008 B.65507E	.000	.000	.000	-8.000	5EF	37.5513
BC-6	10-75	0425	008 B.65507E	.000	.000	.000	-8.000	5EF	43.5314
BC-7	10-75	0425	008 B.65507E	.000	.000	.000	-8.000	5EF	50.000
BC-8	10-75	0425	008 B.65507E	.000	.000	.000	-8.000	5EF	55.210



LAT-DIRECT. CHARACTERISTICS. BASELINE ABES LOCATION (4 NACELLES)(V. TAIL OFF)

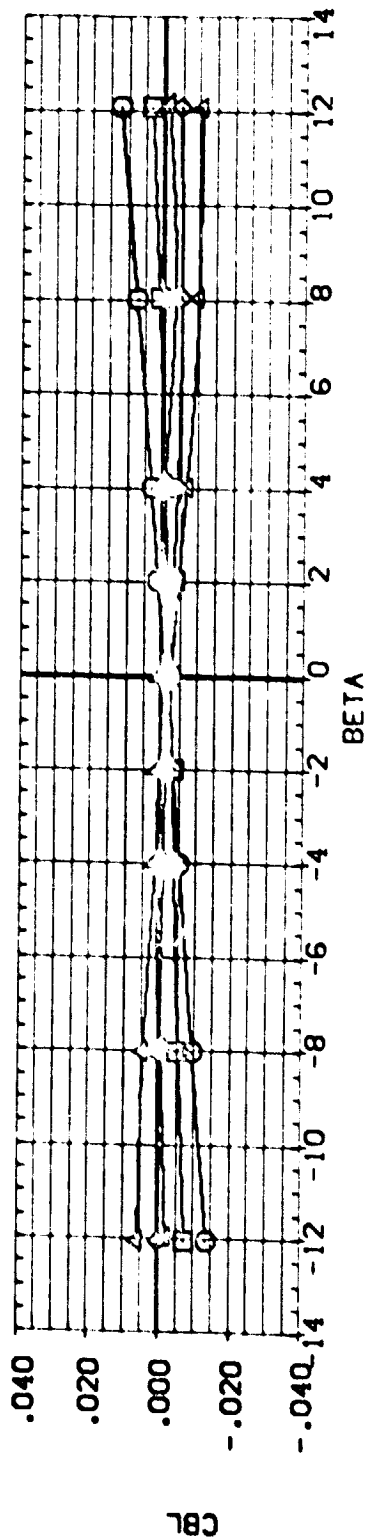
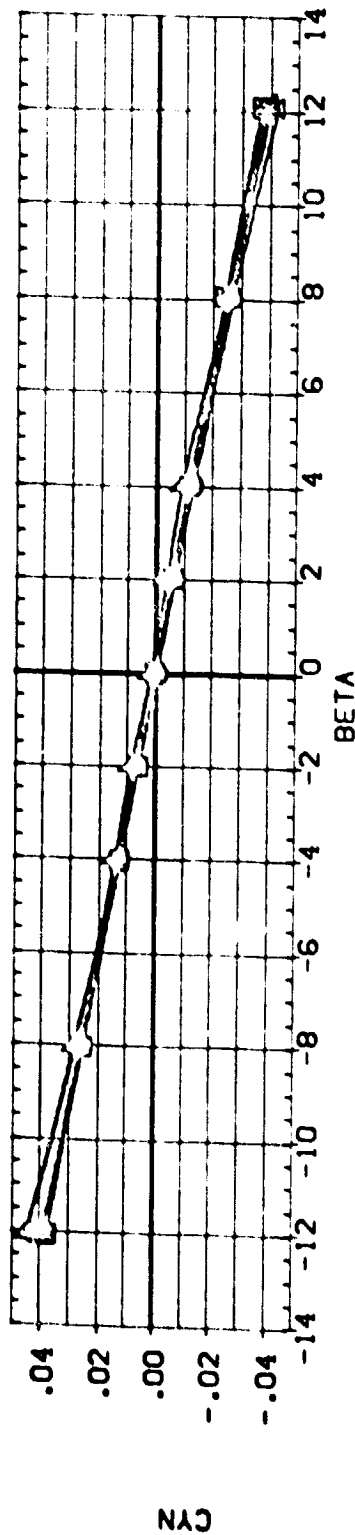
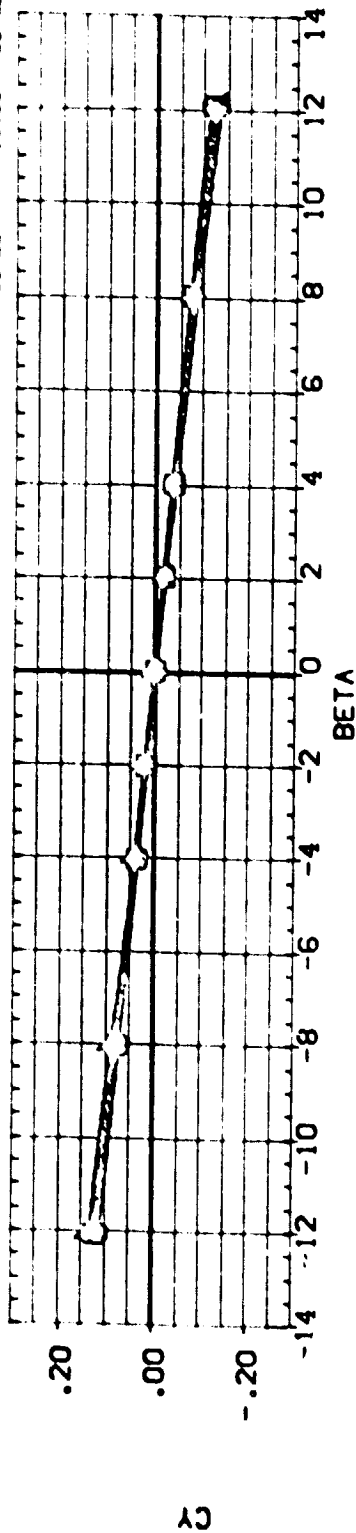
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACA	LIP	8-FLAP	REFERENCE POSITION	50-FT
(13-043)	18-701-0405 098 B18C007 13-8775X10	.000	.100	4.000	-18.000	SPRF	4.4119
(13-044)	18-701-0405 098 B18C007 13-8775X10	.000	.100	4.000	-18.000	LARF	19.2553
(13-045)	18-701-0405 098 B18C007 13-8775X10	.000	.100	4.000	-18.000	BRPF	37.5313
(13-046)	18-701-0405 098 B18C007 13-8775X10	.000	.100	4.000	-18.000	XRPF	43.5374
(13-047)	18-701-0405 098 B18C007 13-8775X10	.000	.100	4.000	-18.000	YRPF	.0000
						ZRPF	16.2000
						SCALE	1.0000
						SCALE	1.0000



LAT.-DIRECT. CHARACTERISTICS, ABES MOVED AFT .10( NACELLE LENGTH(4 NACELLES)

(A)MACH = .20

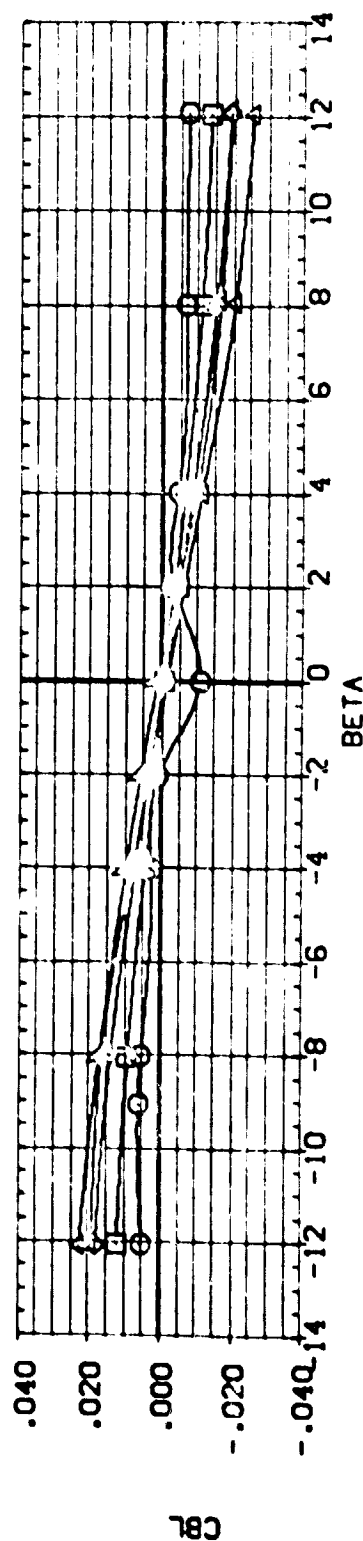
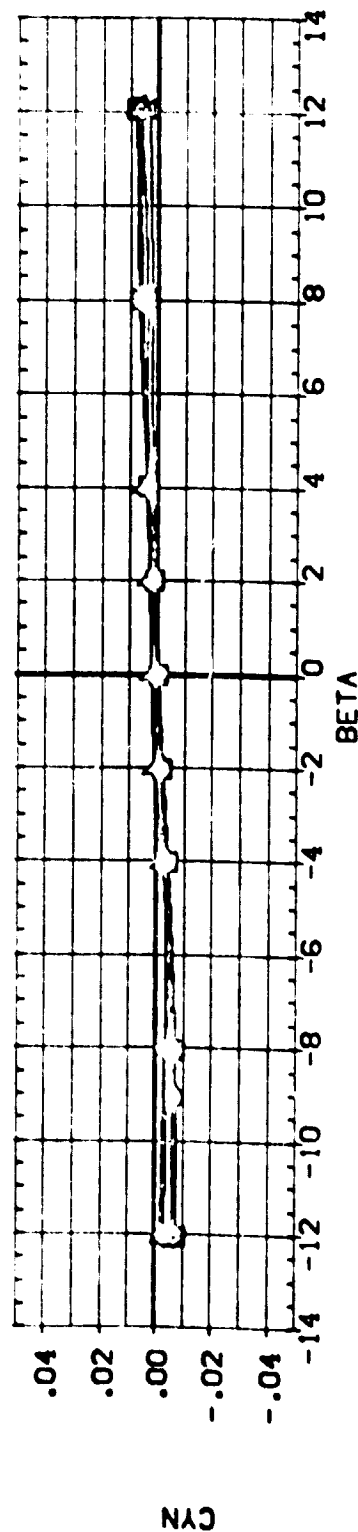
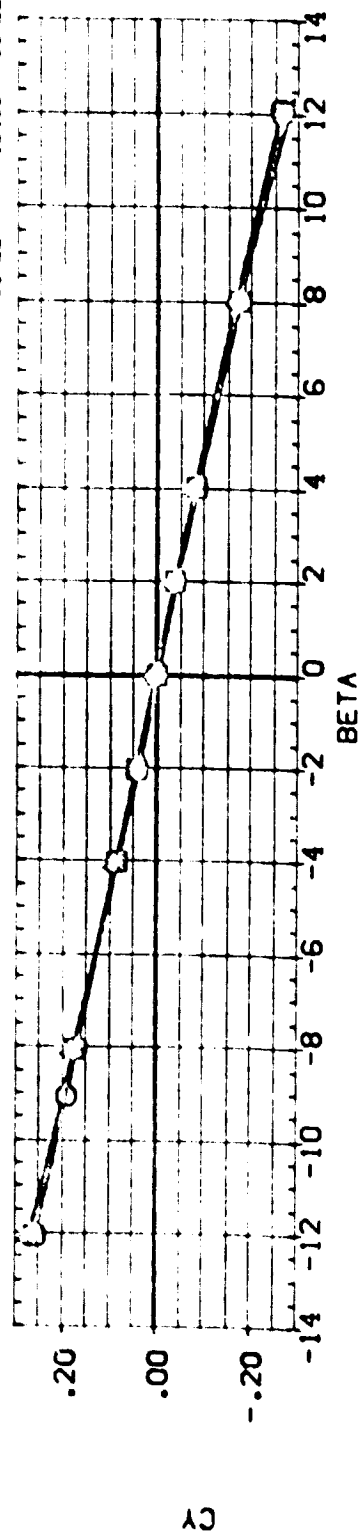
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACAL	LIP	B-FLAP	REFERENCE INFORMATION
(BO-070)	1P-701 .0405 DBB B16C507E J3487X10	.000	.100	4.000	-18.000	SREF 4.419 52.471
(BO-071)	1P-701 .0405 DBB B16C507E J3487X10	5.000	.100	4.000	-18.000	LREF 19.2293 10.000
(BO-072)	1P-701 .0405 DBB B16C507E J3487X10	10.000	.100	4.000	-18.000	YREF 37.5313 10.000
(BO-073)	1P-701 .0405 DBB B16C507E J3487X10	15.000	.100	4.000	-18.000	YREF 43.5974 10.000
(BO-074)	1P-701 .0405 DBB B16C507E J3487X10	18.000	.100	4.000	-18.000	YREF 16.2200 10.000
						SCALE .0405



LAT.-DIRECT. CHARACTERISTICS, ABES MOVED AFT .10( NAC. LENGTH(4 NAC)(V.TAIL OFF)

(A)MACH = .20

	NO. OF PILES	NO. OF PILES	NO. OF PILES	NO. OF PILES	NO. OF PILES	SCALE
20' DEEP	4,419	19,763	37,934	43,554	16,700	.0405



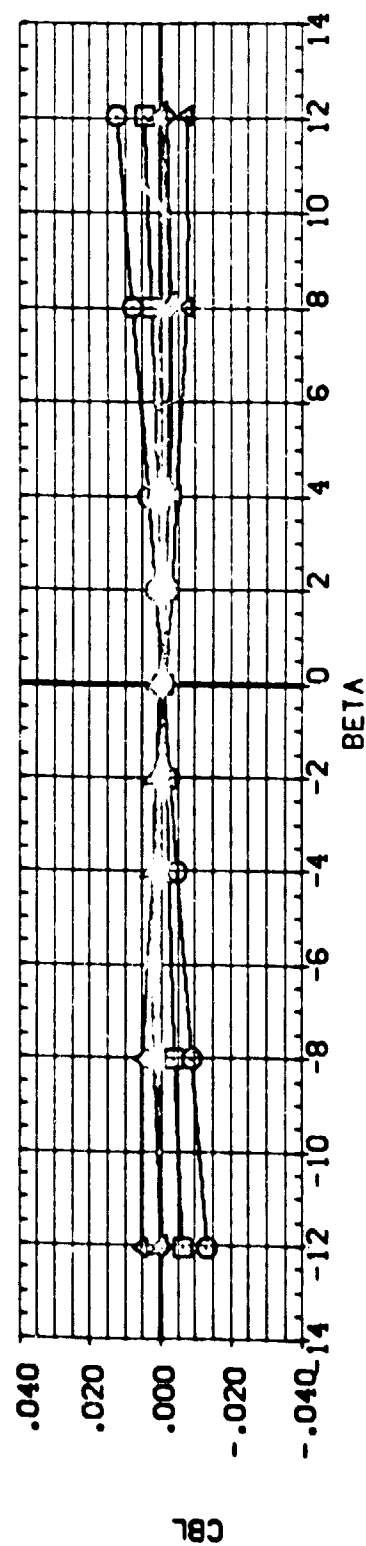
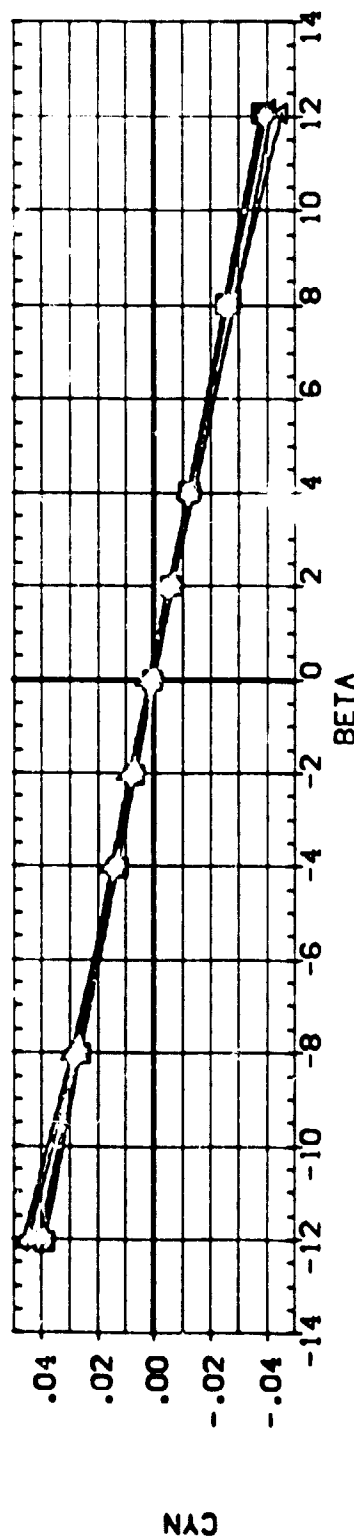
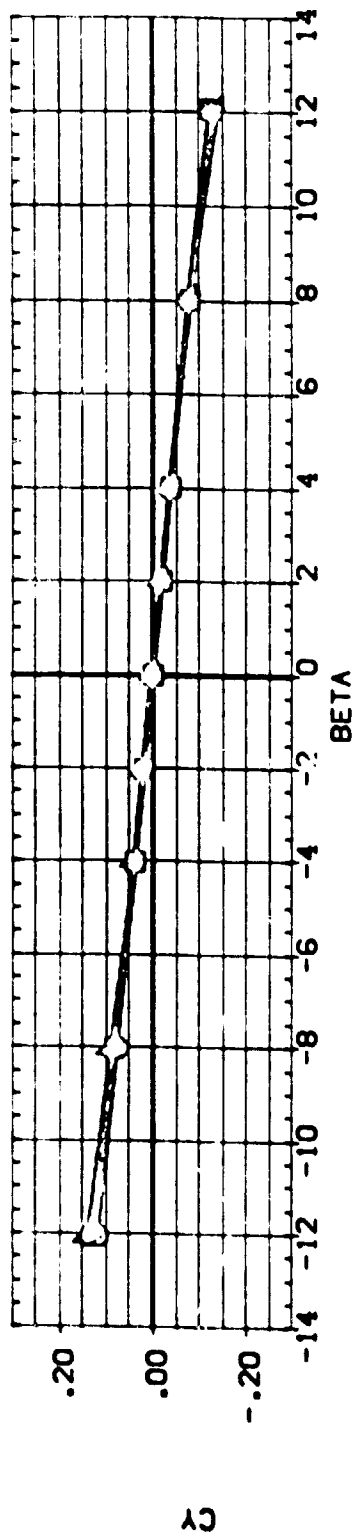
LAT.-DIRECT. CHARACTERISTICS. INBD ABES MOVED FWD. QUTBD AFT .250 NAC. LGTH.

$$C_A)_{MACH} = .20$$

PAGE 86

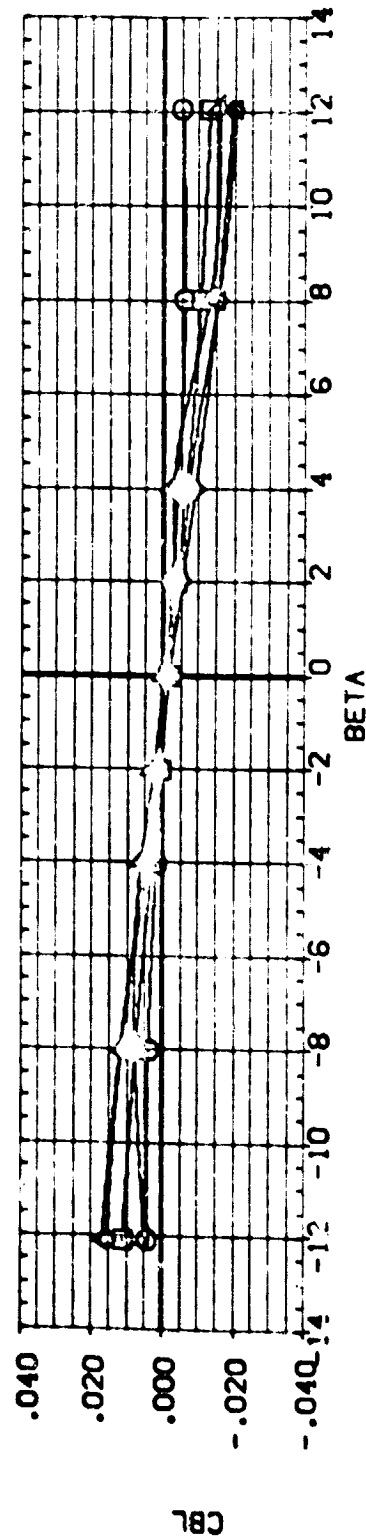
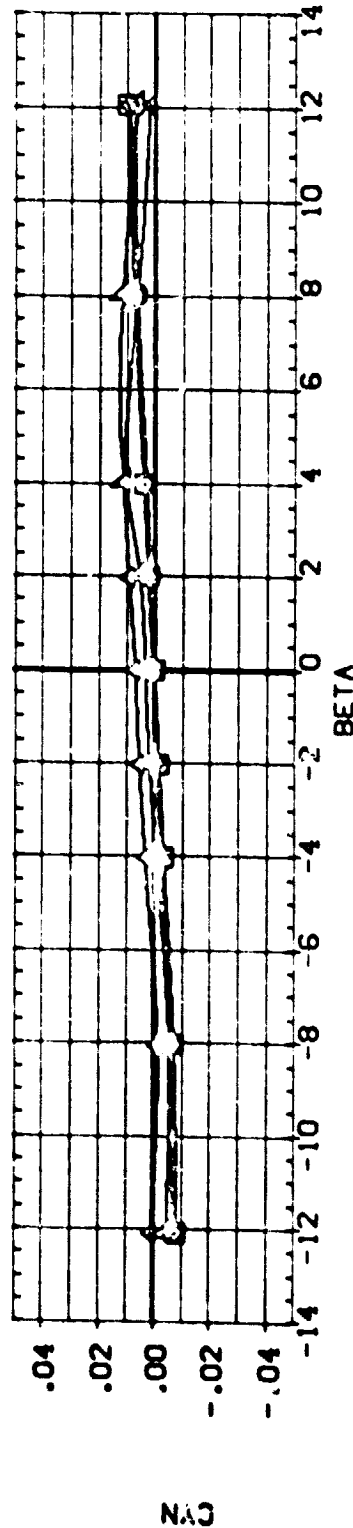
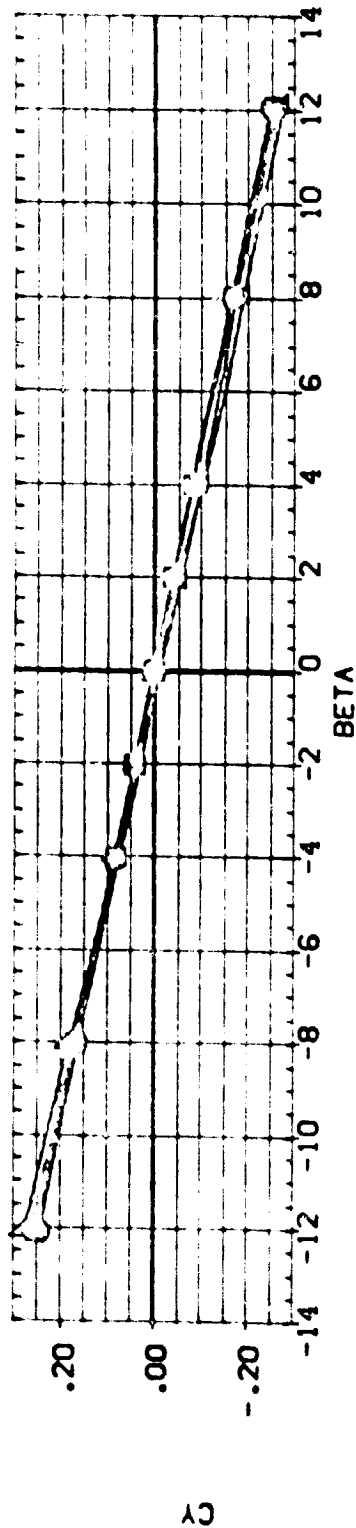


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACA	LIP	B.FLAP	REFERENCE INFORMATION	SCALE
(BDN108)	NR.701.0405 G18 B16C507F143787X10	.000	.250	4.000	-18.000	SREF	4.4113
(BDN109)	NR.701.0405 G18 B16C507F143787X10	5.000	.250	4.000	-18.000	LREF	19.2379
(BDN110)	NR.701.0405 G18 B16C507F143787X10	10.000	.250	4.000	-18.000	PREF	37.5574
(BDN111)	NR.701.0405 G18 B16C507F143787X10	15.000	.250	4.000	-18.000	XREF	43.5574
(BDN112)	NR.701.0405 G18 B16C507F143787X10	18.000	.250	4.000	-18.000	YREF	.0000
						ZREF	16.2000
						SCALE	.0405
							NO-ES
							NO-ES
							SCALE



LAT.-DIRECT. CHARACTERISTICS, INBD ABES MOVED FWD, OUTBD AFT .25( NAC.LGT)-V.TOFF  
 (A)MACH = .20

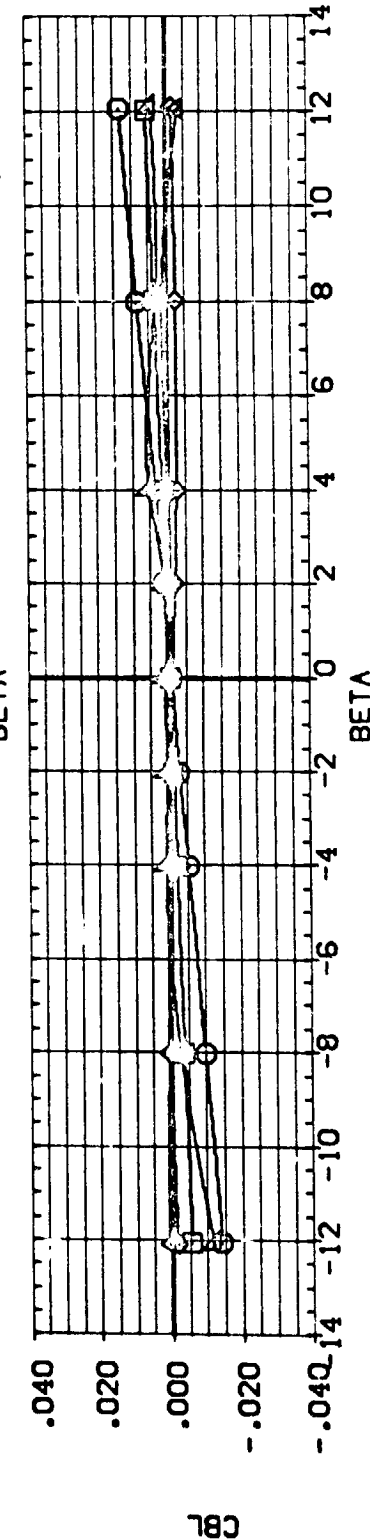
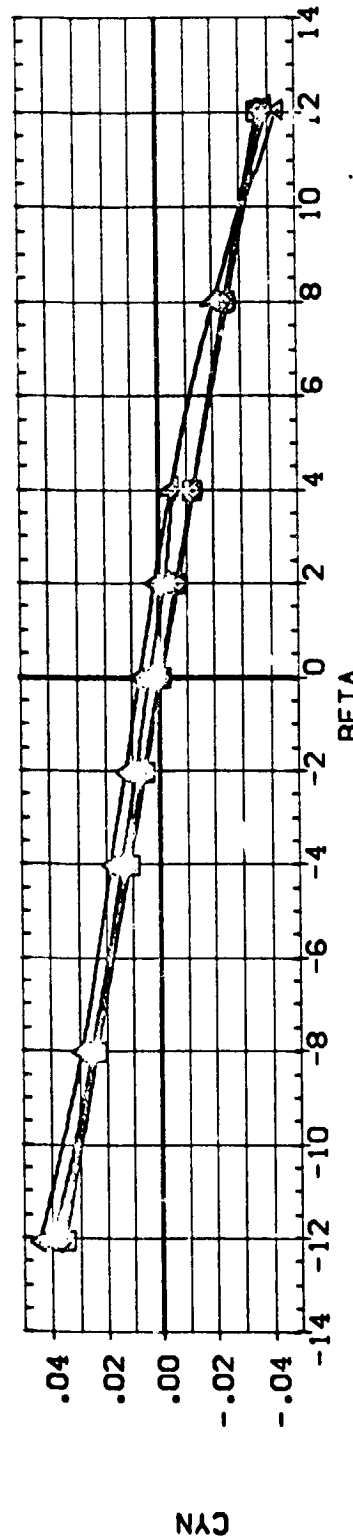
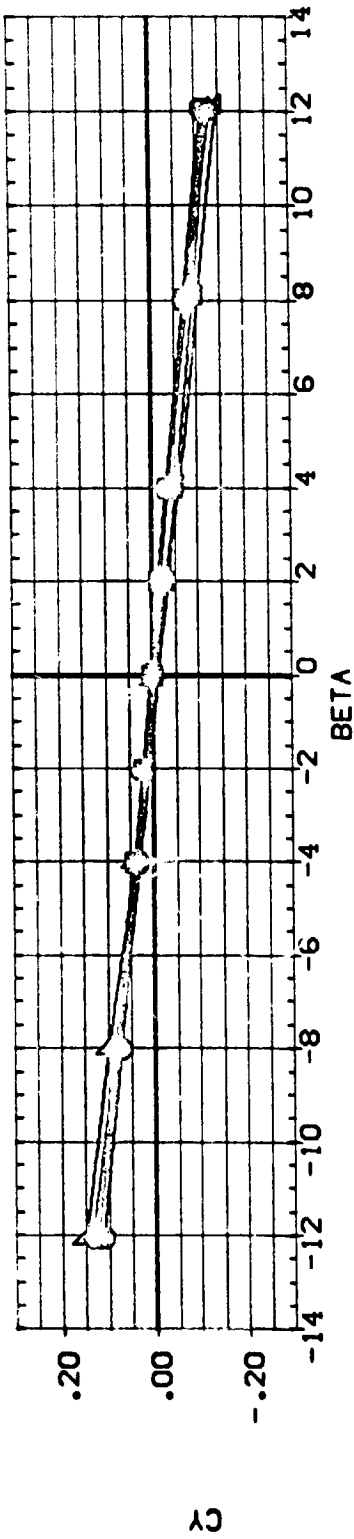
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	MACUL	LIP	3, FLAP	REFERENCE INFORMATION
(BDN157)	NR.701.0405 C73 9180507F 1418775410	.000	.490	4.000	-18.000	4.4119 52.17
(BDN158)	NR.701.0405 C73 8180507F 1418775410	.500	.490	4.000	-18.000	19.7223 110.05
(BDN159)	NR.701.0405 C73 8180507F 1418775410	1.000	.490	4.000	-18.000	37.9219 110.05
(BDN170)	NR.701.0405 C73 8180507F 1418775410	1.500	.490	4.000	-18.000	13.5974 110.05
(BDN171)	NR.701.0405 C73 8180507F 1418775410	18.000	.490	4.000	-18.000	16.2000 110.05
					SCALE	SCALE



LAT.-DIRECT. CHARACTERISTICS, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

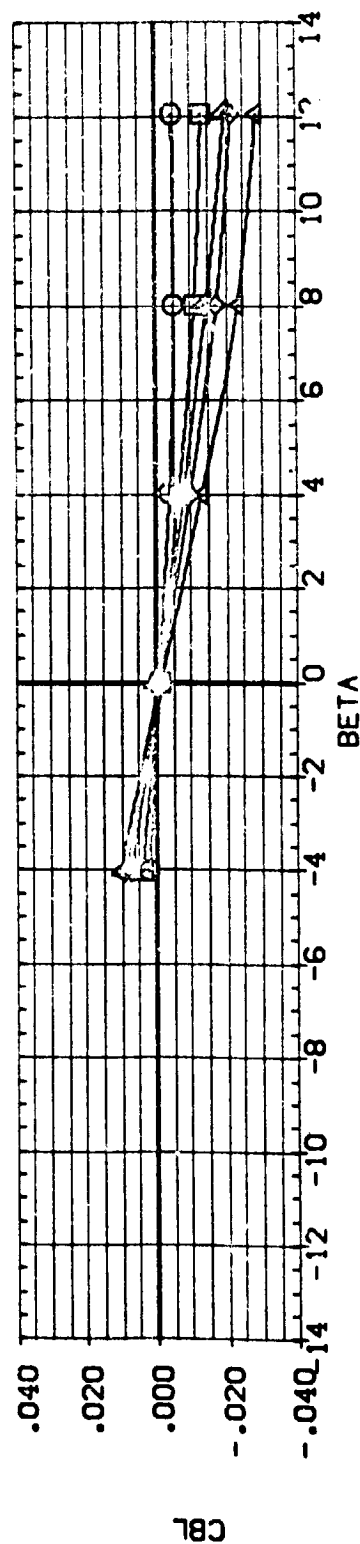
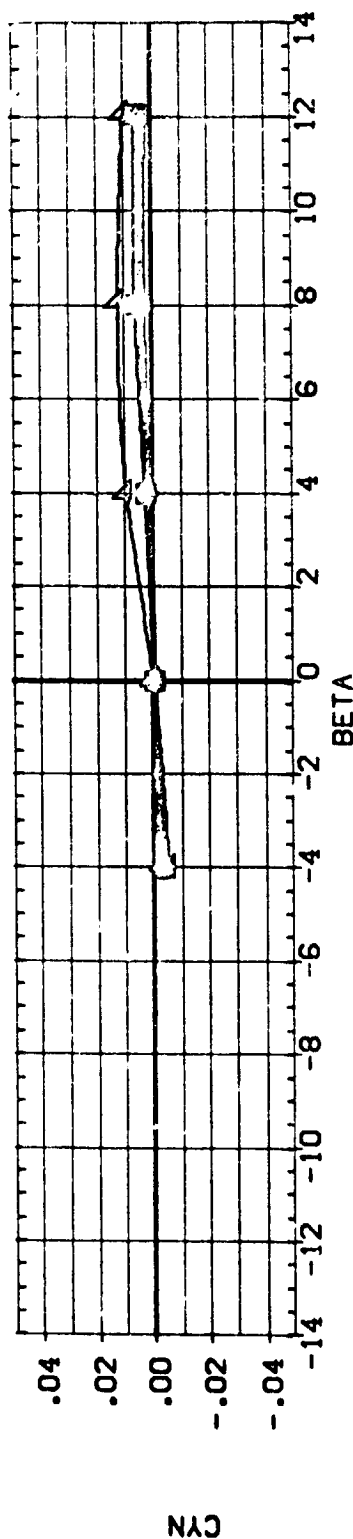
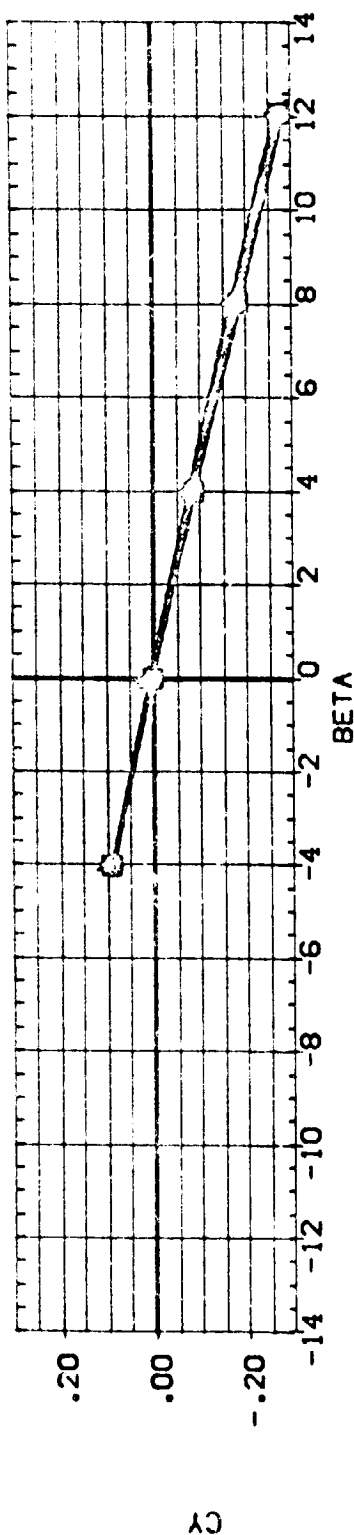
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACA/L	LIP	8-FLAP	REFERENCE INFORMATION	50-FT.
(904201)	NR.701.0405 DRB B16C507F J4V87X10	.000	.490	4.000	-18.000	SREF	4.4119
(904202)	NR.701.0405 DRB B16C507F J4V87X10	5.000	.490	4.000	-18.000	LINEF	19.2639
(904203)	NR.701.0405 DRB B16C507F J4V87X10	10.000	.490	4.000	-18.000	ENREF	37.5519
(904204)	NR.701.0405 DRB B16C507F J4V87X10	15.000	.490	4.000	-18.000	XREF	43.5574
(904205)	NR.701.0405 DRB B16C507F J4V87X10	18.000	.490	4.000	-18.000	YREF	16.2030
						ZREF	.0405
						SCALE	.0405



LAT.-DIRECT. CHARACTERISTICS. 2 FUSELAGE AND 2 WING ABES(VERT. TAIL OFF)

MACH = .20

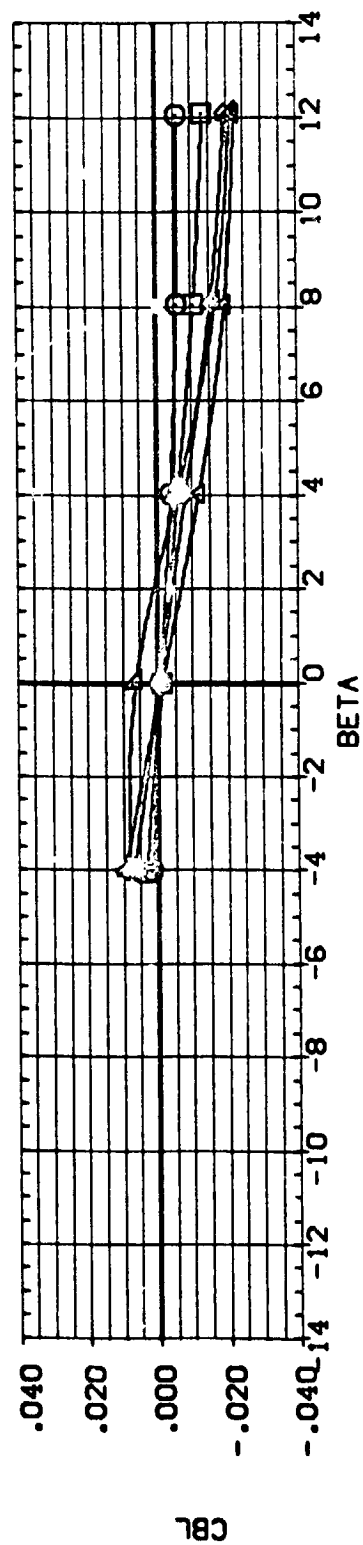
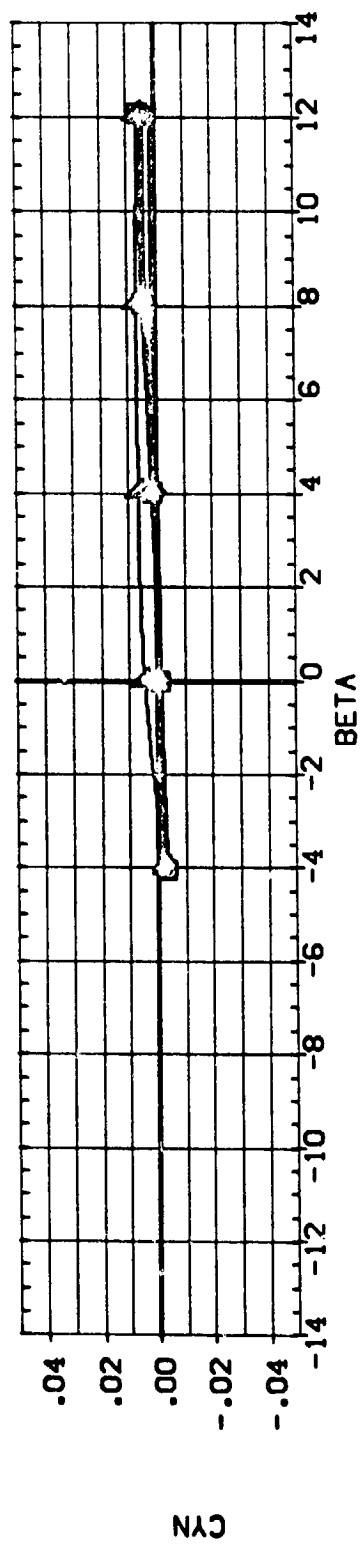
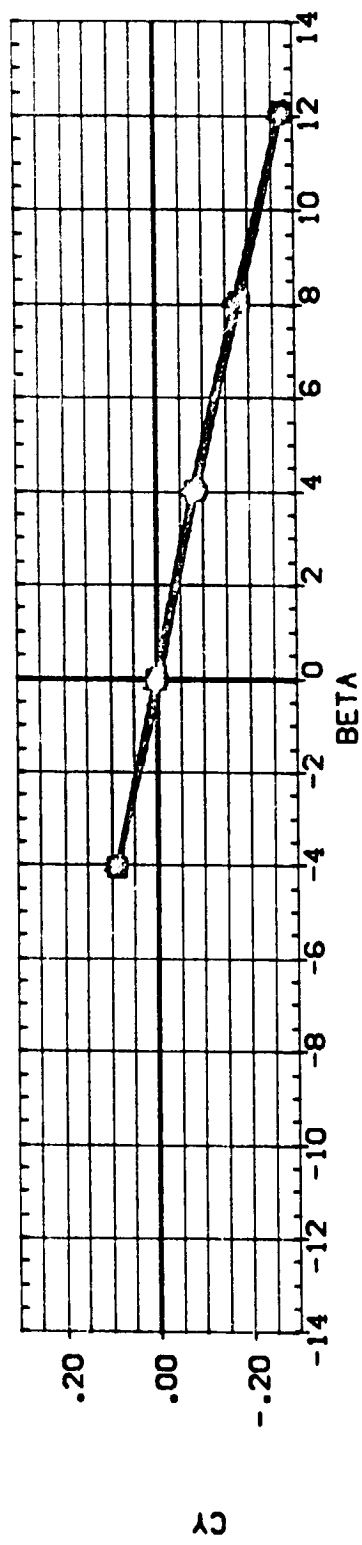
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACVAL	LIP	B.FLAP	REFERENCE INFORMATION	50 FT
(B0G14)	NR.701.0405 C88 B16C507F J5612.877510	0.0	.000	4.000	-18.000	SREF	19.2000
(B1G15)	NR.701.0405 C88 B16C507F J5612.877510	5.000	.000	4.000	-18.000	LREF	37.5971
(B2G16)	NR.701.0405 C88 B16C507F J5612.877510	10.000	.000	4.000	-18.000	BREF	43.0000
(B3G17)	NR.701.0405 C88 B16C507F J5612.877510	15.000	.000	4.000	-18.000	YREF	16.2000
(B0G18)	NR.701.0405 C88 B16C507F J5612.877510	18.000	.000	4.000	-18.000	ZREF	.0405



LAT.-DIRECT. CHARACTERISTICS, BASELINE ABES LOCATION (6 NACELLES)

(A)MACH = .20

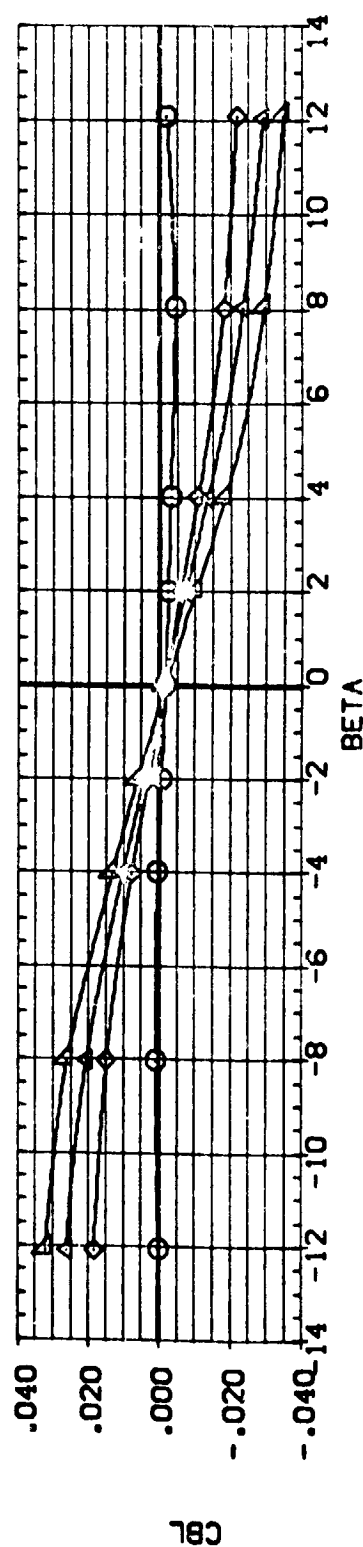
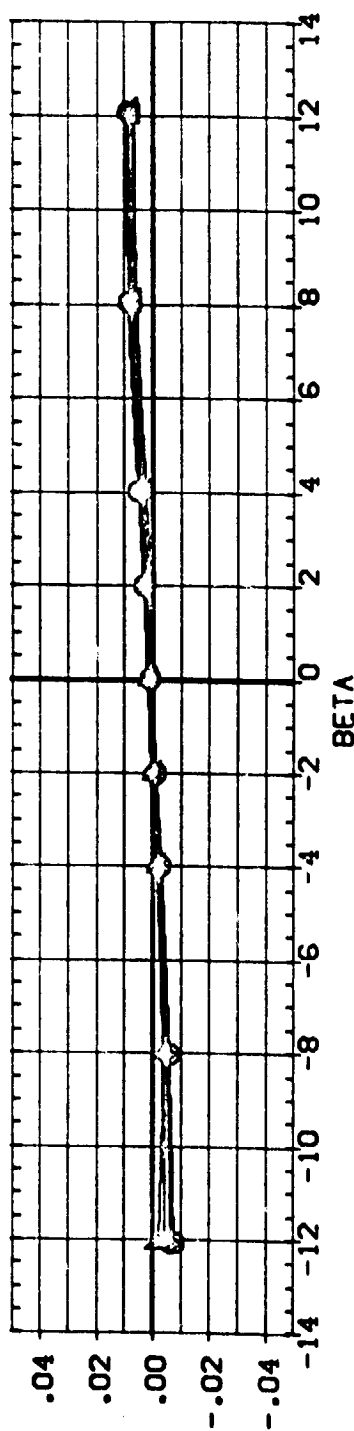
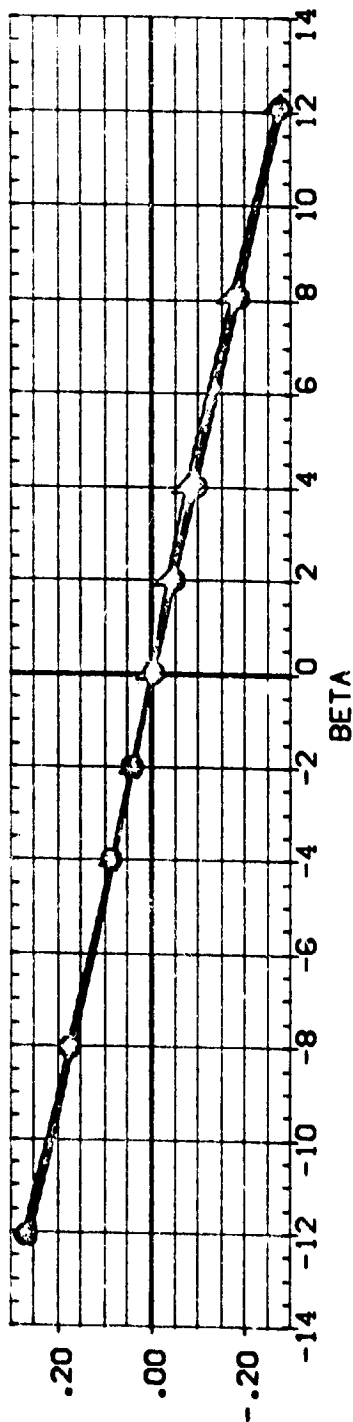
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACA/L	LIP	8, FLAP	REFERENCE INFORMATION
(BON358)	Nr. 701.0405 088 B16C507F1J6612487V5X10	.000	.490	4.000	-18.000	SREF 4.4119 50. FT.
(BON359)	Nr. 701.0405 088 B16C507F1J6612487V5X10	5.000	.490	4.000	-18.000	LREF 19.2073 INCHES
(BON360)	Nr. 701.0405 088 B16C507F1J6612487V5X10	10.000	.490	4.000	-18.000	XREF 37.5249 INCHES
(BON361)	Nr. 701.0405 088 B16C507F1J6612487V5X10	15.000	.490	4.000	-18.000	YREF 43.5974 INCHES
(BON362)	Nr. 701.0405 088 B16C507F1J6612487V5X10	18.000	.490	4.000	-18.000	ZREF 16.2000 INCHES
						SCALE .0405



LAT.-DIRECT. CHARACTERISTICS, 2 FUSELAGE AND 4 WING ABES

(A)MACH = .20

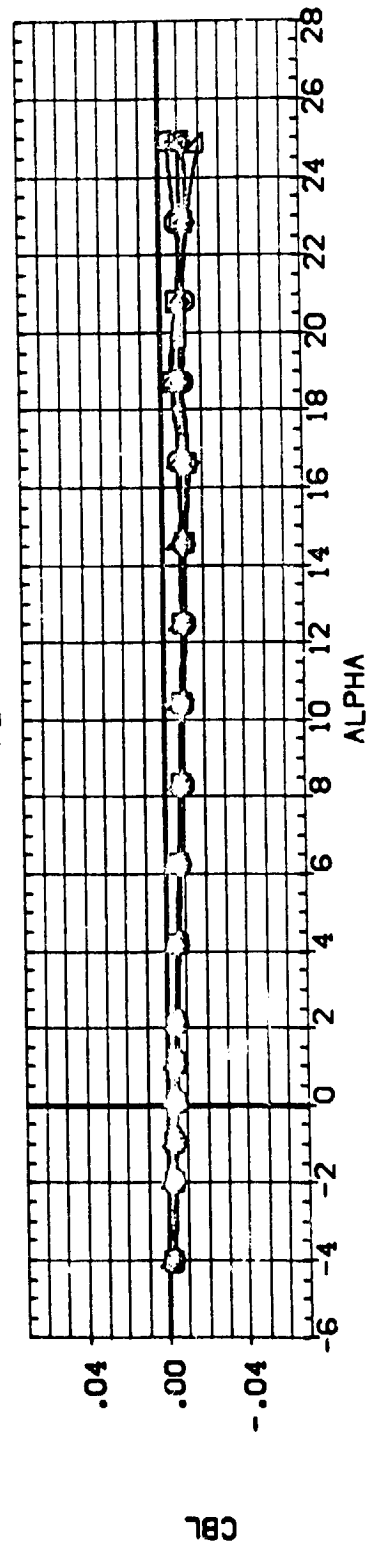
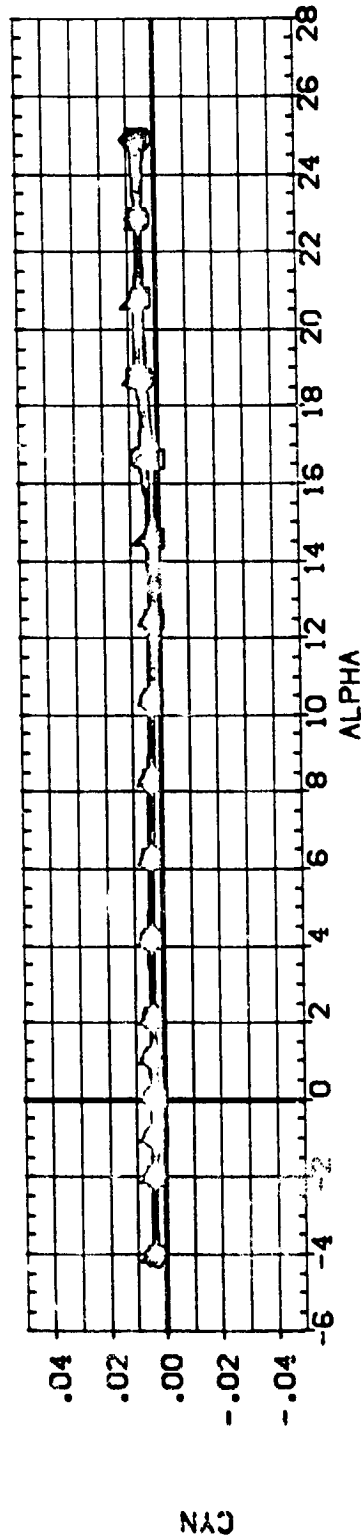
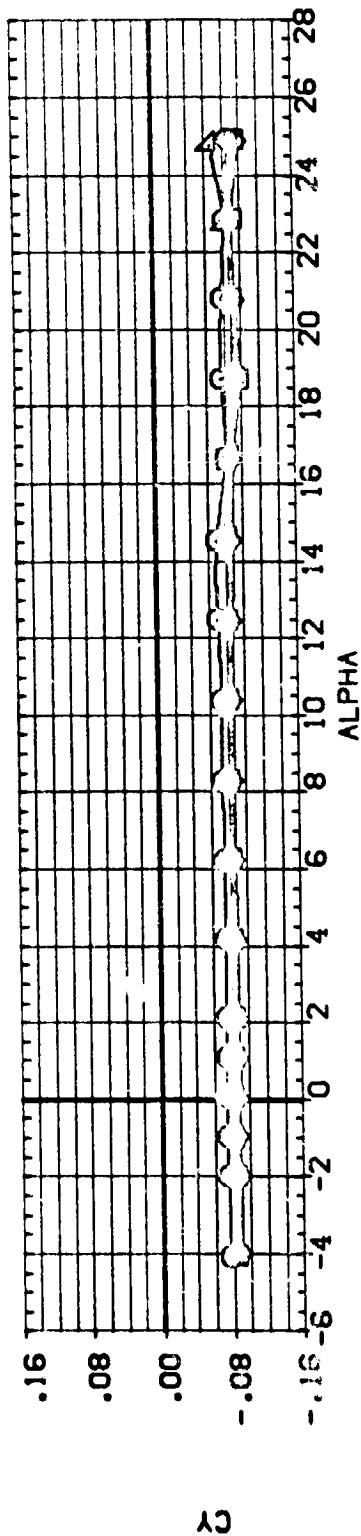
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACVAL	LIP	B-FLAP	REFERENCE INFORMATION
(BON332)	NR,701,0405 C78 B16C507F17612V87V5X10	.000	.000	4.000	-18.000	SREF 4.4119 52.47
(BON333)	NR,701,0405 C78 B16C507F17612V87V5X10	10.000	.000	4.000	-18.000	LREF 13.2339 130.45
(BON334)	NR,701,0405 C78 B16C507F17612V87V5X10	15.000	.000	4.000	-18.000	EREF 37.3343 100.00
(BON335)	NR,701,0405 C78 B16C507F17612V87V5X10	18.000	.000	4.000	-18.000	XREF 43.5374 100.00
						TRP 16.2000 100.00
						SCALE .0405 100.00



LAT.-DIRECT. CHARACTERISTICS, 2 CLUSTERS OF 3 NACELLES EACH

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NACA	LIP	B. FLAP	RUDDER	REFERENCE INFORMATION
(BUN134)	NR.701.0405 DBB B16C507F J3V87V5X10	.000		-18.000	.000	SREF 4.4119 50.FT. INCHES
(BUN120)	NR.701.0405 DBB B16C507F J3V87V5X10	.000	4.000	-18.000	.000	LREF 19.2399 50.FT. INCHES
(BUN142)	NR.701.0405 DBB B16C507F J3V87V5X10	.100	4.000	-18.000	.000	BREF 37.5349 50.FT. INCHES
(BUN158)	NR.701.0405 DBB B16C507F J3V87V5X10	.250	4.000	-18.000	.000	XREF 45.3974 50.FT. INCHES
(BUN168)	NR.701.0405 DBB B16C507F J3V87V5X10	.450	4.000	-18.000	.000	ZREF 16.2000 50.FT. INCHES
						SCALE .0405



LAT-DIRECT. CHARACTERISTICS, BETA= 4 DEGS. (4 NACELLES), RUDDER=0 DEGREES

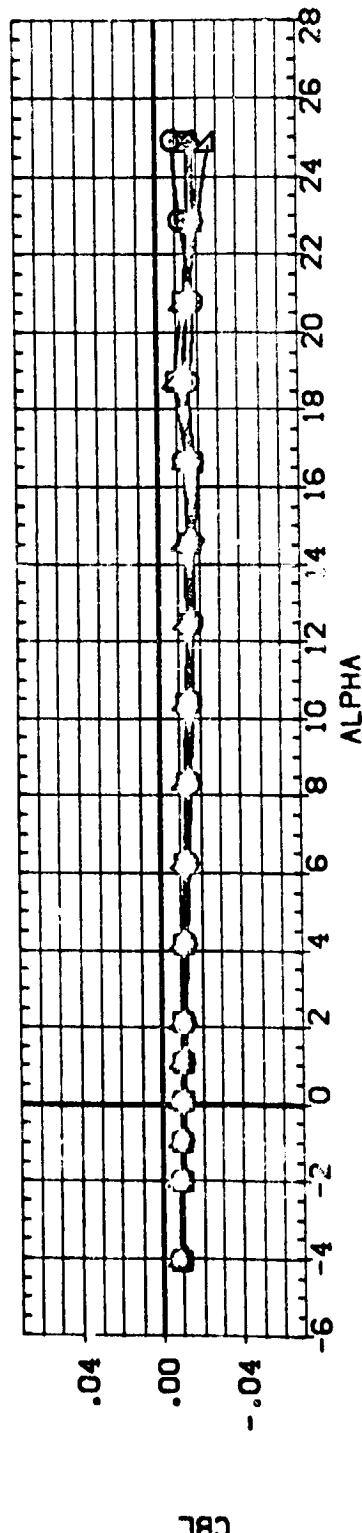
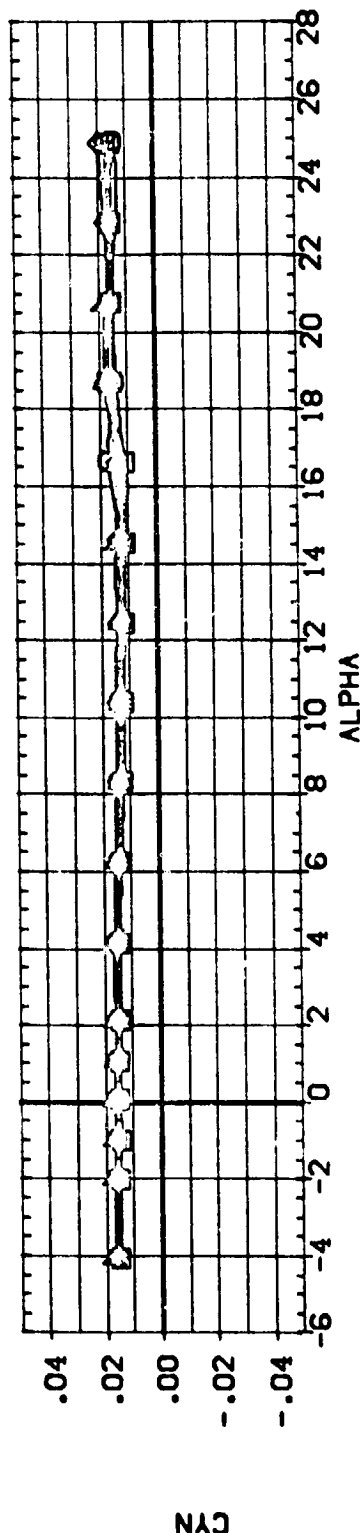
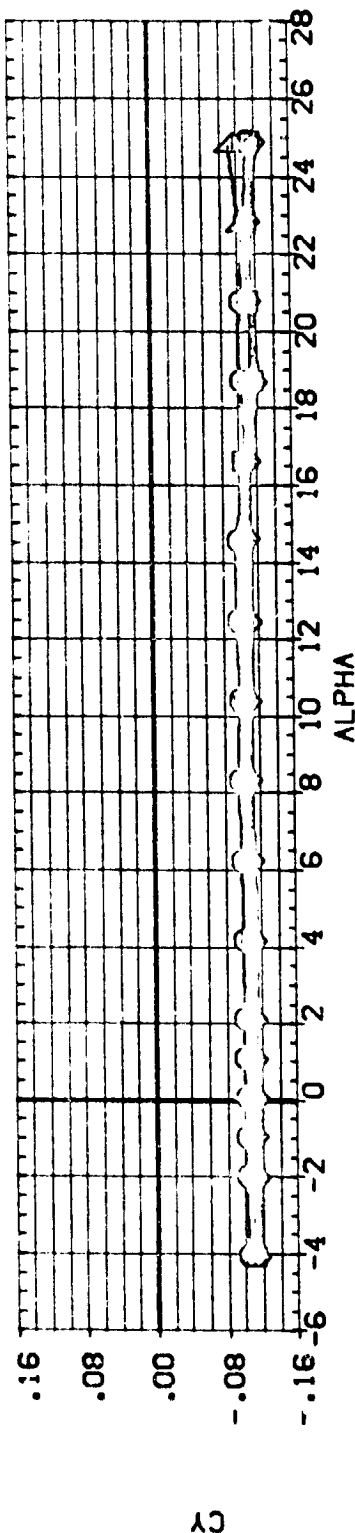
(A)MACH = .20

DATA SET 5: 1801  
 (50N141)  
 (50N119)  
 (50N093)  
 (50N025)  
 (50N188)

CONFIGURATION DESCRIPTION  
 NR.701.0405 DR8 B16C507F 1307V53X10  
 NR.701.0405 DR8 B16C507F 1307V53X10  
 NR.701.0405 DR8 B16C507F 1307V53X10  
 NR.701.0405 DR8 B16C507F 1307V53X10

BACK/LIP B-FLAP RUDDER  
 .000 4.000 -18.000 -7.500  
 .100 4.000 -18.000 -7.500  
 .250 4.000 -18.000 -7.500  
 .450 4.000 -18.000 -7.500

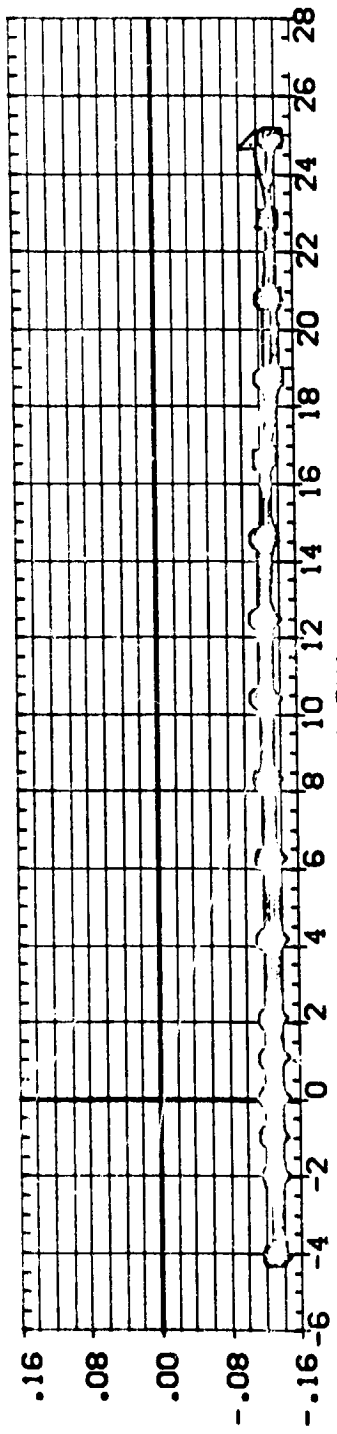
REFERENCE INFORMATION  
 SREF 4.4119 50.FT.  
 LREF 19.2999 INCHES  
 BREF 37.5019 INCHES  
 YREF 43.5974 INCHES  
 ZREF 10.0000 INCHES  
 YREF 16.2000 INCHES  
 SCALE .0405



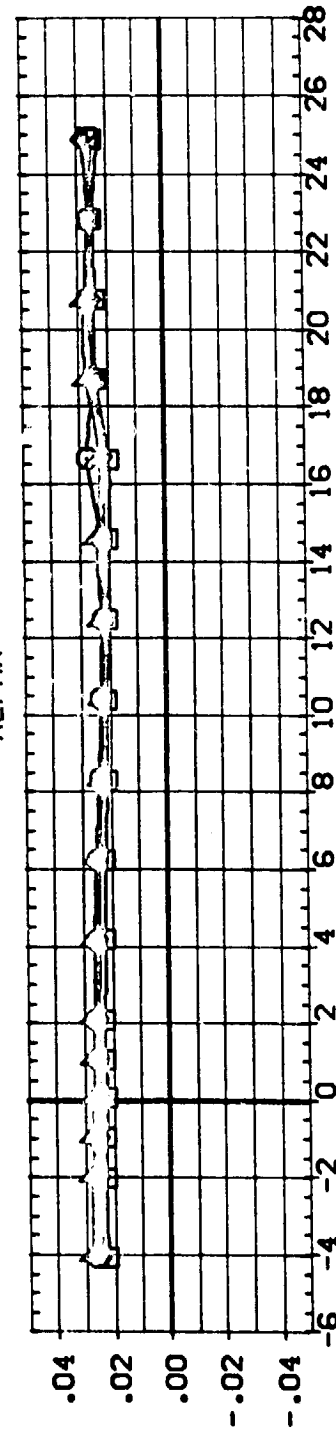
LAT-DIRECT. CHARACTERISTICS, BETA= 4 DEGS. (4 NACELLES), RUDDER=-7.5 DEGREES



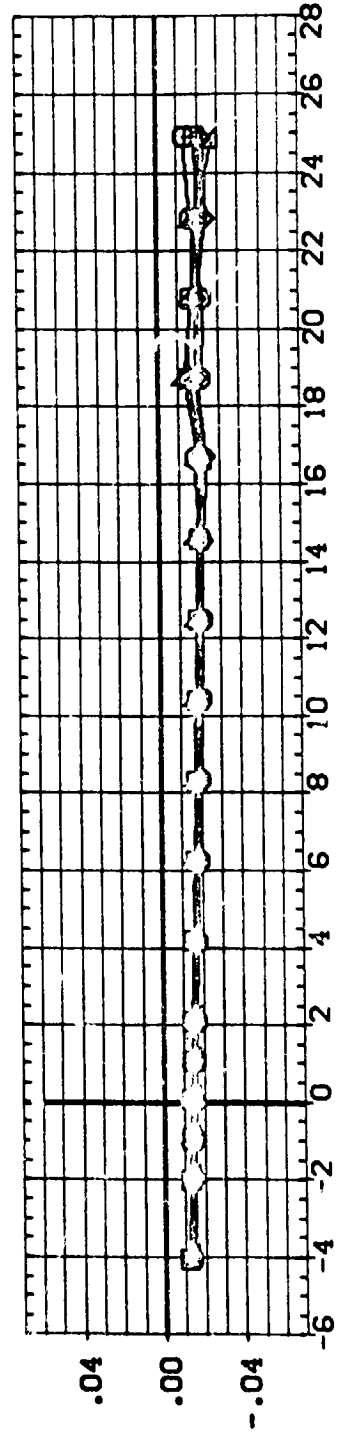
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	NACVAL	LIP	B-FLAP	RUDDER	REFERENCE INFORMATION
(B01148)	NR.701.0405 033 816C507F 14V87V5R5X10	.000	4.000	-18.000	-15.000	SREF 4.4119 SQ.FT.
(B01113)	NR.701.0405 033 816C507F 14V87V5R5X10	.100	4.000	-18.000	-15.000	LREF 19.2899 INCHES
(B01057)	NR.701.0405 033 816C507F 14V87V5R5X10	.250	4.000	-18.000	-15.000	BREF 37.5349 INCHES
(B01102)	NR.701.0405 033 816C507F 14V87V5R5X10	.490	4.000	-18.000	-15.000	XREF 43.5574 INCHES
(B01155)	NR.701.0405 033 816C507F 14V87V5R5X10					YREF 16.2000 INCHES
						ZREF .0405 INCHES
						SCALE



CY



CYN



CBL

LAT-DIRECT. CHARACTERISTICS, BETA= 4 DEGS. (4 NACELLES), RUDDER=-15.0 DEGREES  
 CAOMACH = .20

DATA SET SYMBOL: (BXN) 33  
 (BXN) 40  
 (BXN) 47

CONFIGURATION DESCRIPTION  
 NR. 701: 0405 058 B18C507F1V87V53X9  
 NR. 701: 0405 053 B18C507F1V87V53X9  
 NR. 701: 0405 058 B18C507F1V87V53X9

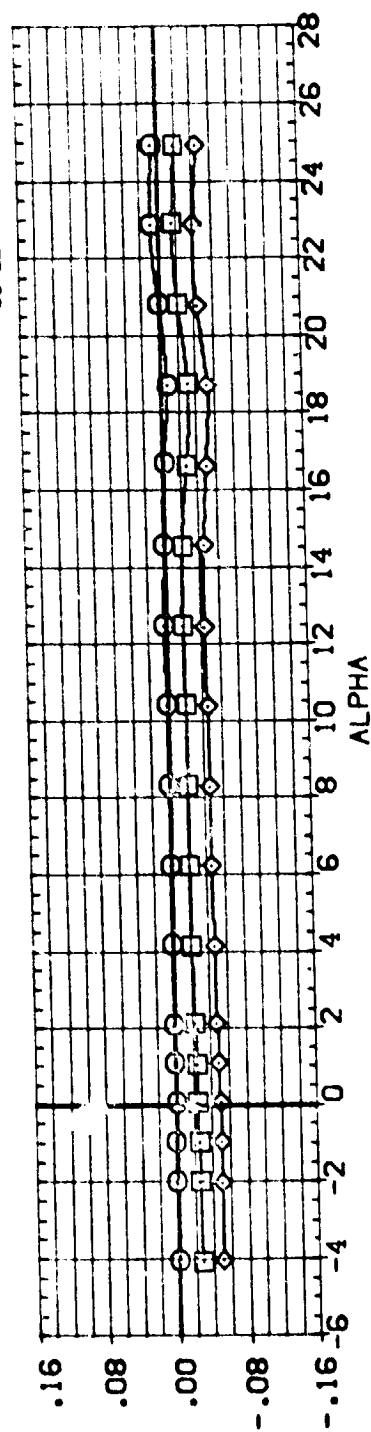
ELEVATION: .000  
 .000  
 .000

ATLITON: .000  
 .000  
 .000

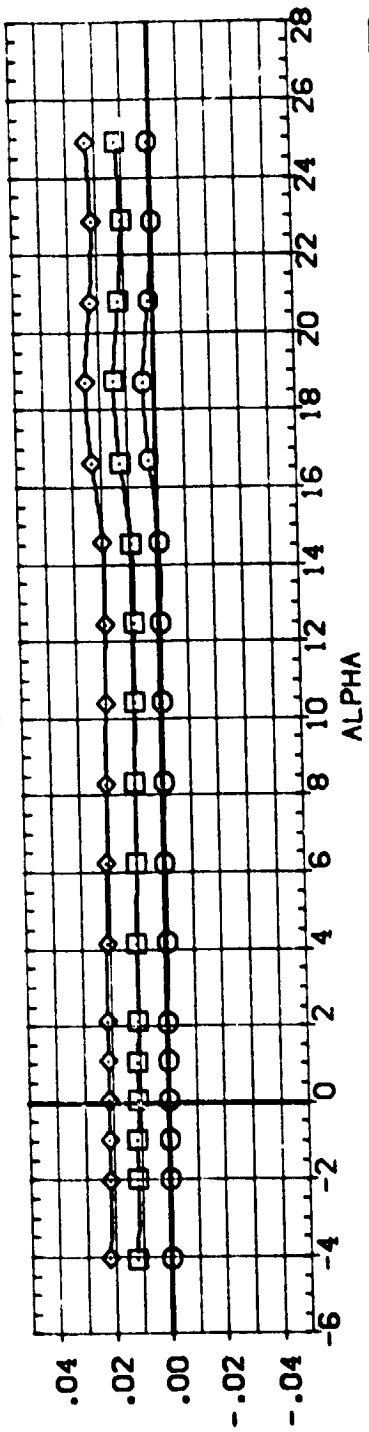
RUDDER: .000  
 .000  
 .000

B. FLAP: -18.000  
 -18.000  
 -18.000

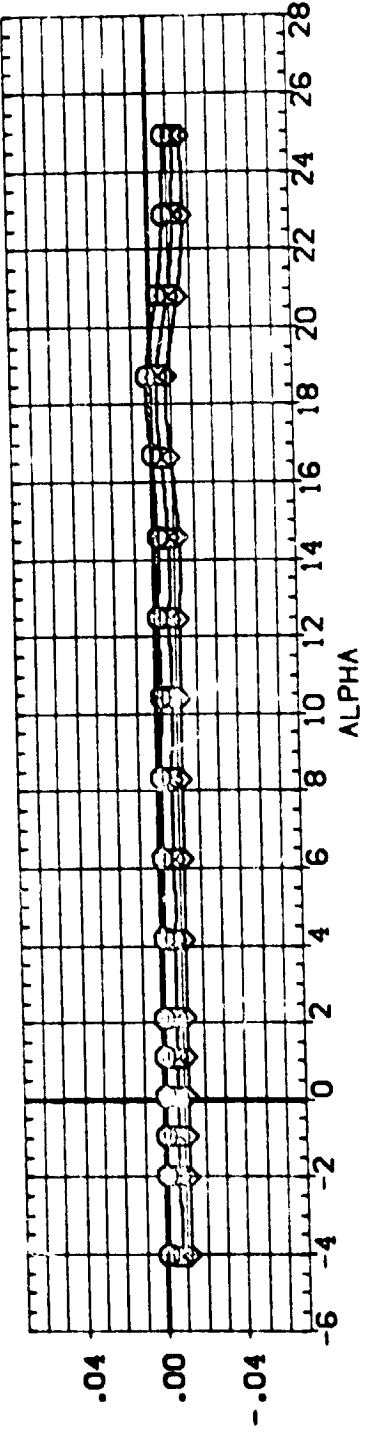
REFERENCE INFORMATION  
 SREF: 4.4119 50.47  
 LREF: 19.2353 100.00  
 BREF: 37.5349 100.00  
 XREF: 43.5574 100.00  
 YREF: .0000 100.00  
 ZREF: 16.2000 100.00  
 SCALE: .0405



CY



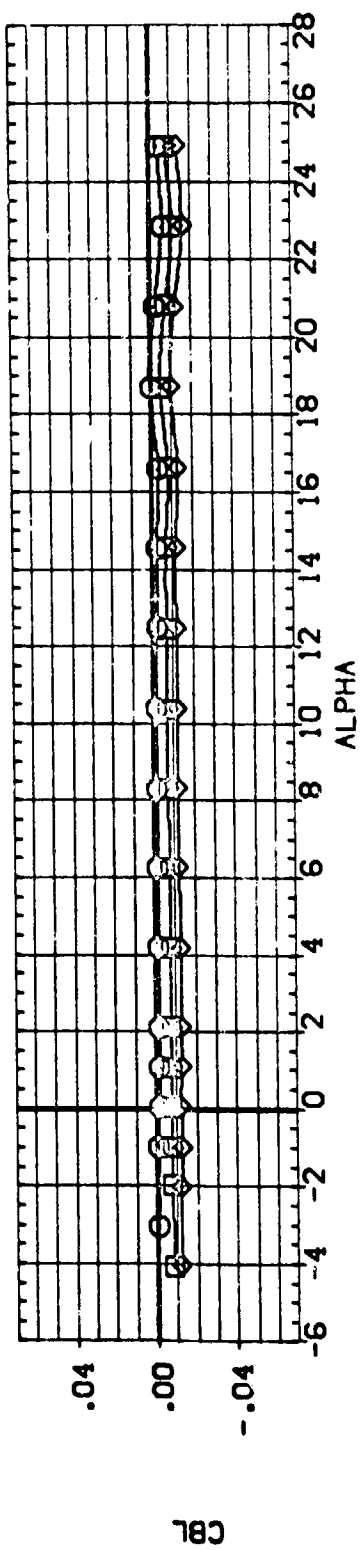
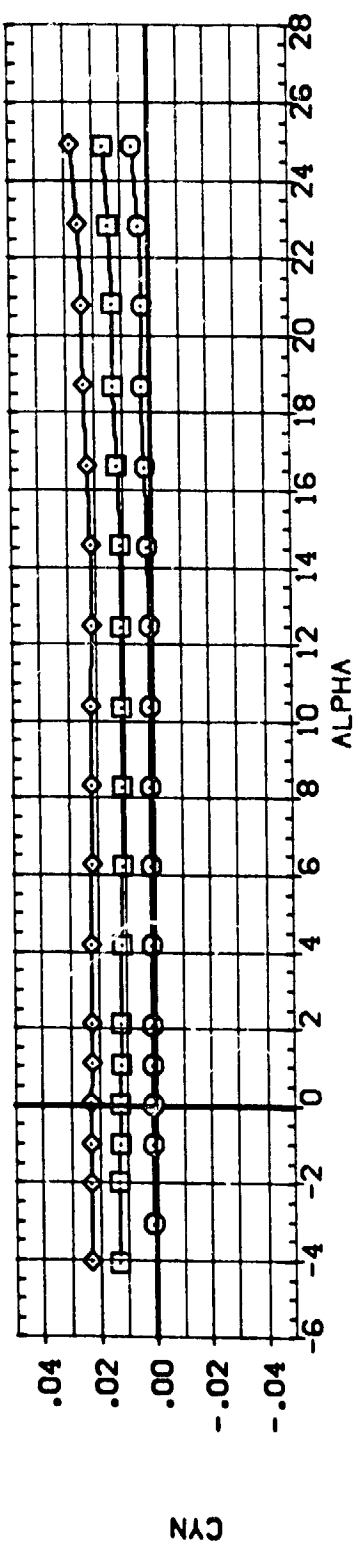
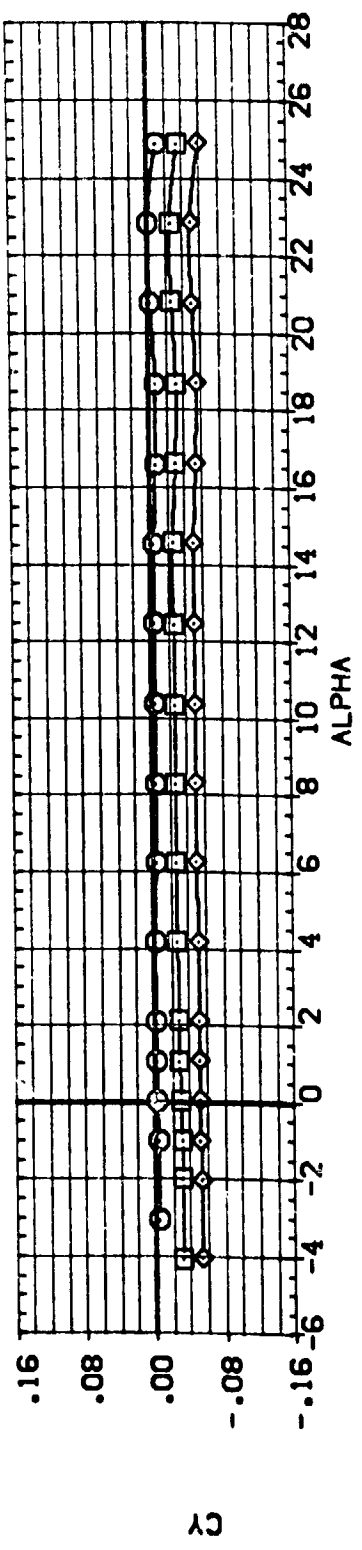
CYN



CBL

RUDDER EFFECTIVENESS, ABES OF'  
 (A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	8-FLAP	NACVL	LIP	REFERENCE INFORMATION
(B0N011)	NR.701.0405 098 B16C307F1J3V8V5X10	.000	-18.000	.000	4.000	SREF 4.4118 SQ.FT.
(B0N031)	NR.701.0405 098 B16C307F1J3V8V5X10	-7.500	-18.000	.000	4.000	LREF 19.2359 INCHES
(B0N025)	NR.701.0405 098 B16C307F1J3V8V5X10	-15.000	-18.000	.000	4.000	BREF 37.5249 INCHES
						XTRP 43.5374 INCHES
						YTRP .0000 INCHES
						ZTRP 16.2000 INCHES
						SCALE .0405

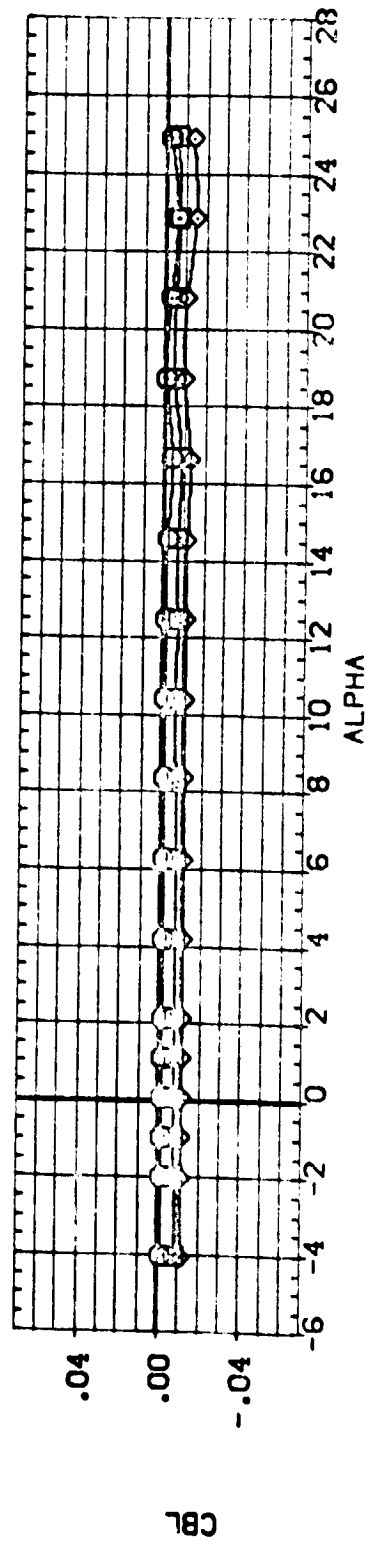
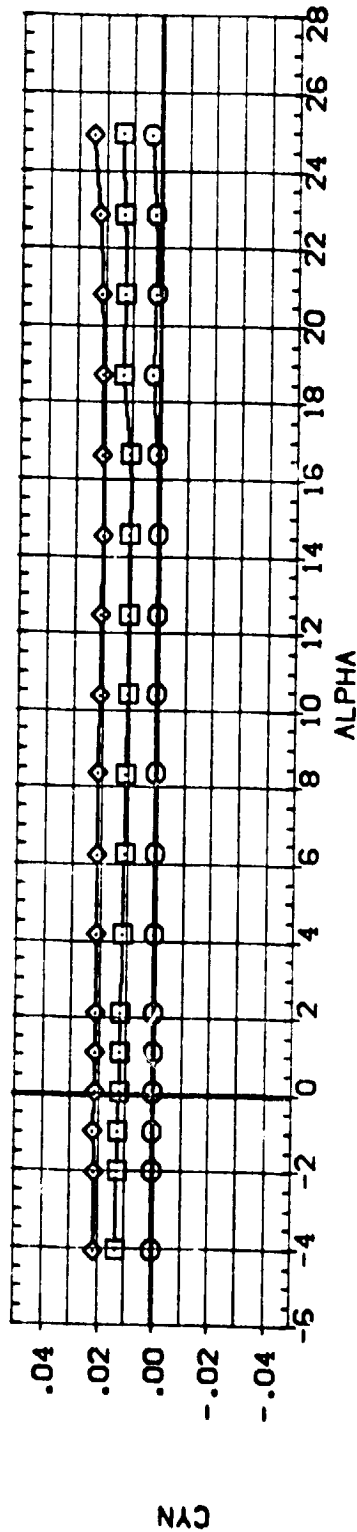
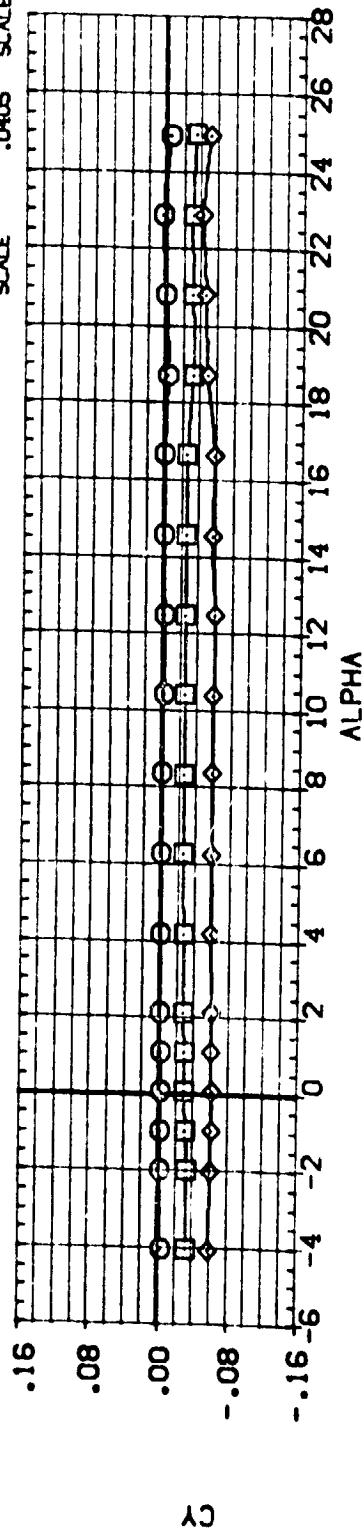


RUDDER EFFECTIVENESS, BASELINE ADES LOCATION (4 NACELLES)

(M)MACH = .20

DATA SET SYMB. CONFIGURATION DESCRIPTION

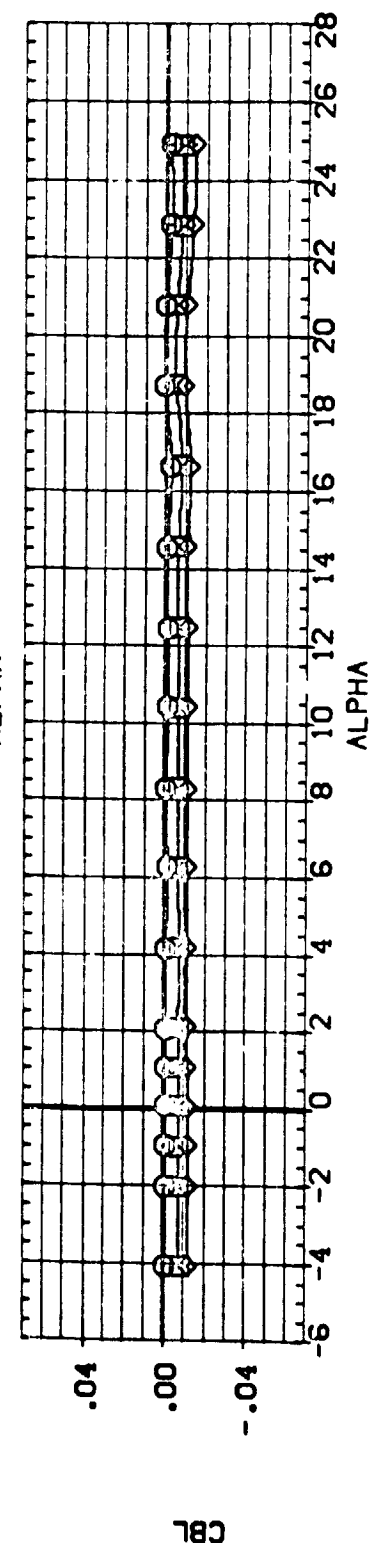
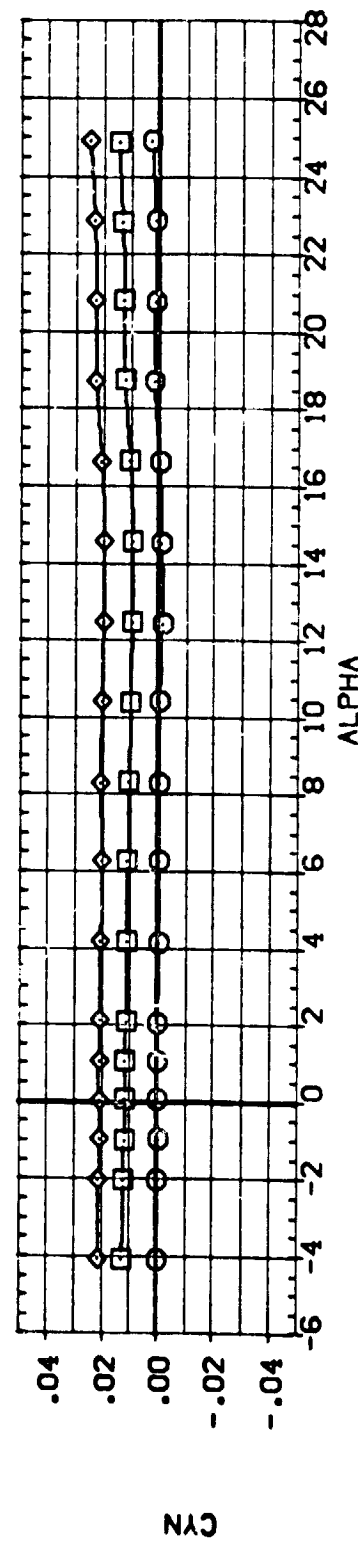
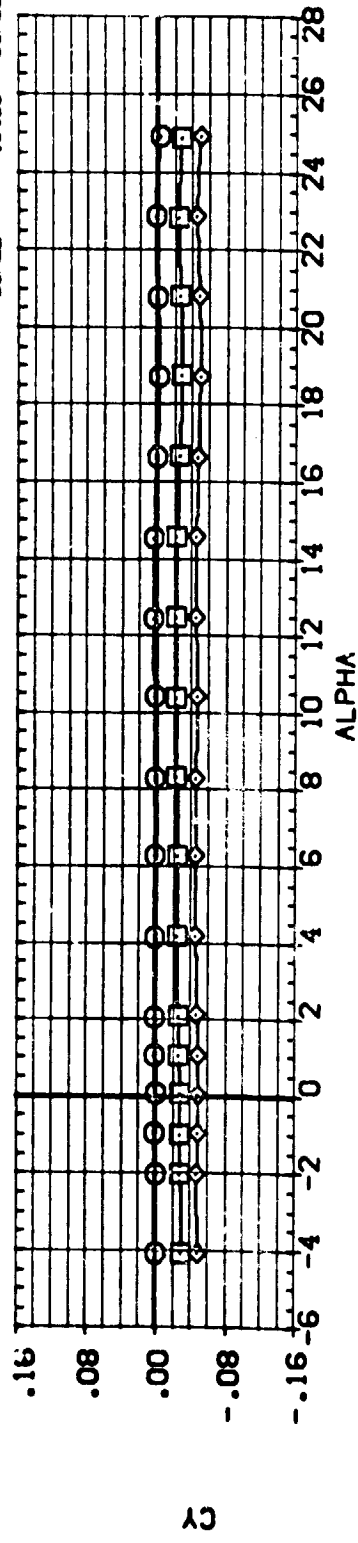
DATA SET SYMB.	CONFIGURATION DESCRIPTION	RUDDER	B. FLAP	NACA/L	LIP	REFERENCE INFORMATION
(BON041)	NR.701.0405 088 B16C507F 1/3/87V3X10	.000	-18.000	.100	4.000	SREF 4.4119 SQ.FT.
(BON053)	NR.701.0405 088 B16C507F 1/3/87V3X10	-7.500	-18.000	.100	4.000	LREF 19.2399 INCHES
(BON056)	NR.701.0405 088 B16C507F 1/3/87V3X10	-15.000	-18.000	.100	4.000	YREF 37.5949 INCHES
						XREF 43.5974 INCHES
						YMRP .0000 INCHES
						ZMRP 16.2000 INCHES
						SCALE .0405



RUDDER EFFECTIVENESS, ABES MOVED AFT .10( NACELLE LENGTH)

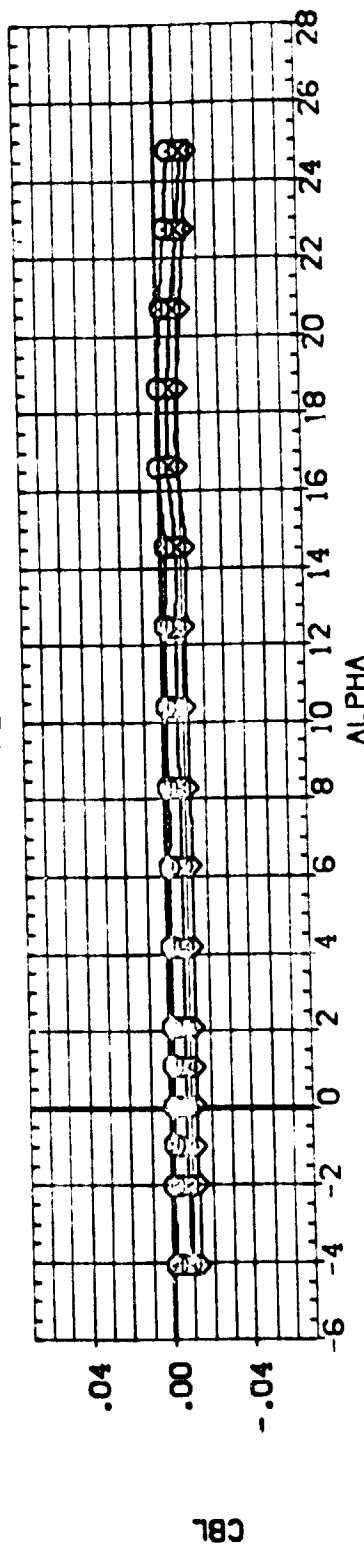
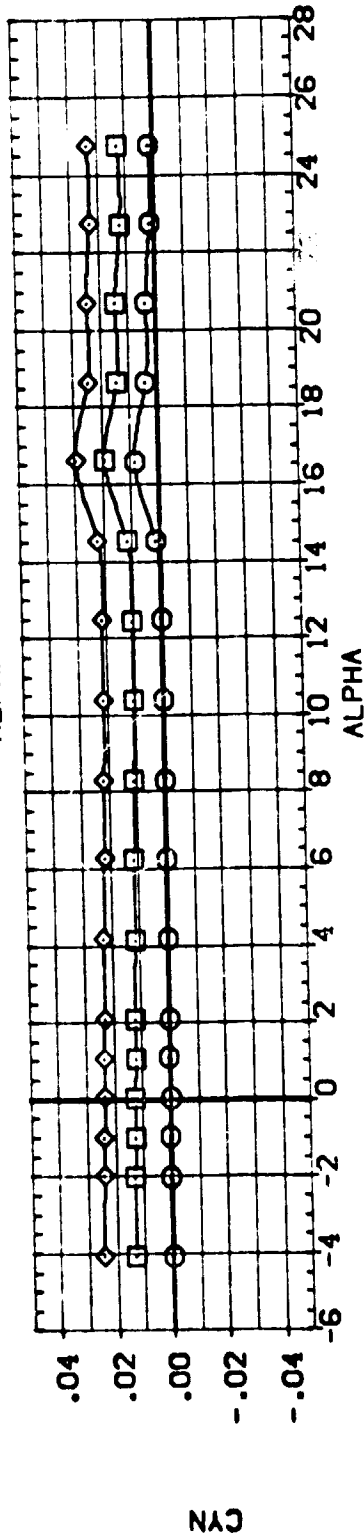
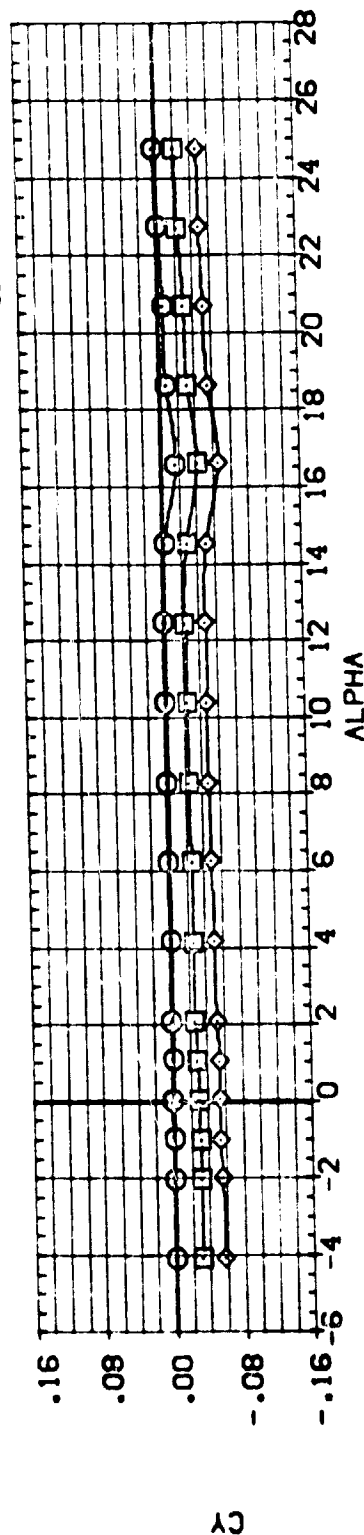
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	B. FLAP	NACAL	LIP	REFERENCE INFORMATION
(BD1087)	NR.701.0405 OR8 B16C507F1J3M87V5K10	.000	-18.000	.250	4.000	SREF 4.4119 SQ.FT.
(BL1084)	NR.701.0405 OR8 B16C507F1J3M87V5K10	-7.500	-18.000	.250	4.000	LREF 19.2598 INCHES
(BD1011)	NR.701.0405 OR8 B16C507F1J3M87V5K10	-15.000	-18.000	.250	4.000	BREF 37.9349 INCHES
						XREF 43.5574 INCHES
						YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



RUDDER EFFECTIVENESS, INBD ABES MOVED FWD, OUTBD AFT .25( NACELLE LENGTH)

REFERENCE INFORMATION	
SRREF	4.4119 SQ.FT.
LREF	19.2589 INCHES
SRREF	37.9349 INCHES
WRREF	43.5974 INCHES
WRREF	.0000 INCHES
WRREF	16.2000 INCHES
SCALE	.0405 SCALE



RUDDER EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES

$$C_A]_{MACH} = .20$$

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DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(BDN138)    N8-701.0405 QRB B18C507F 1887V5X9

(BDN145)    N8-701.0405 QRB B18C507F 1887V5X9

(BDN153)    N8-701.0405 QRB B18C507F 1887V5X9

ALPHA    RUDDER    B-FLAP

18.000    .000    -18.000

18.000    -7.500    -18.000

18.000    -15.000    -18.000

REFERENCE INFORMATION

SREF    4.4119    SQ.FT.

LREF    19.2389    INCHES

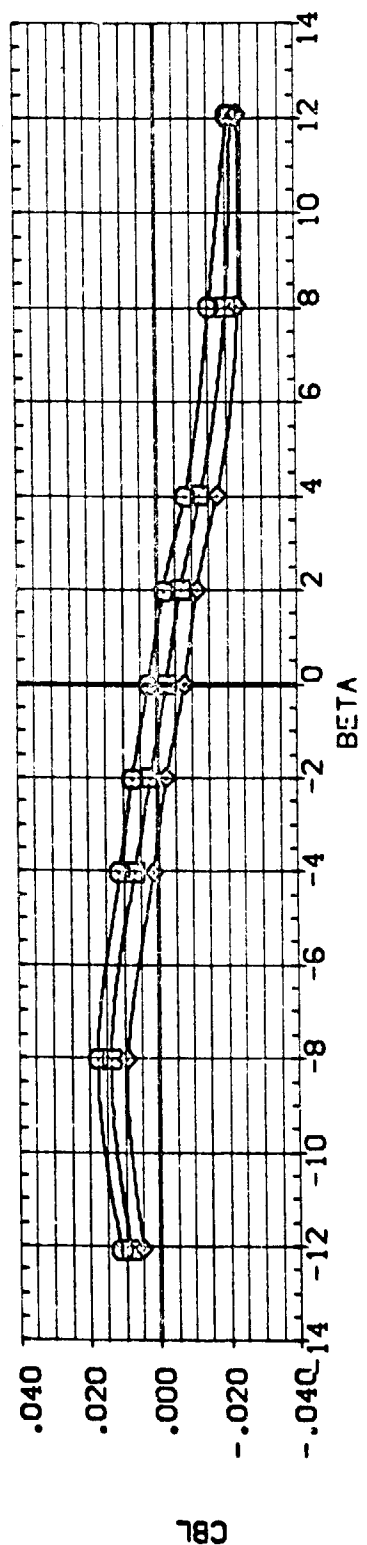
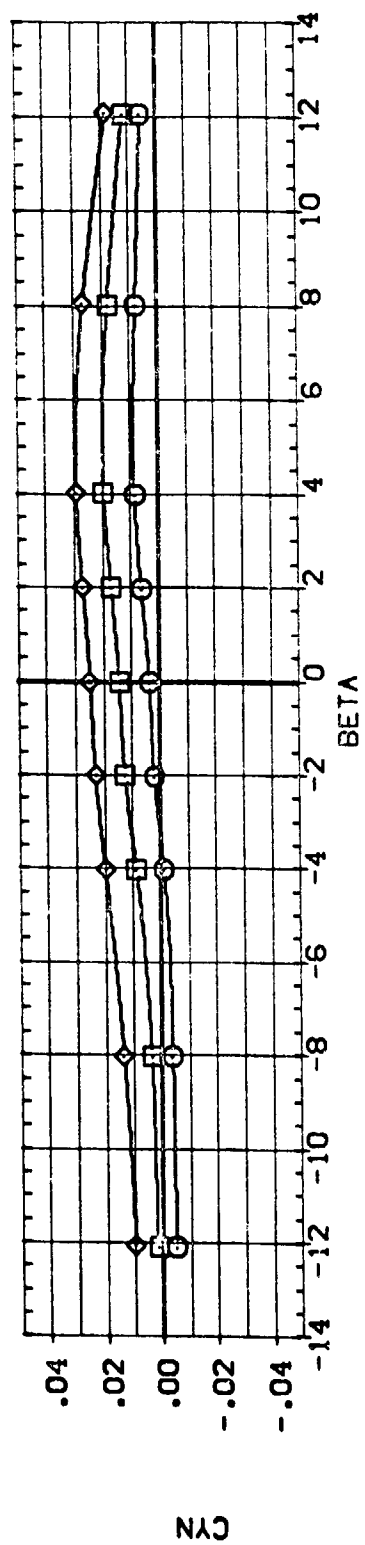
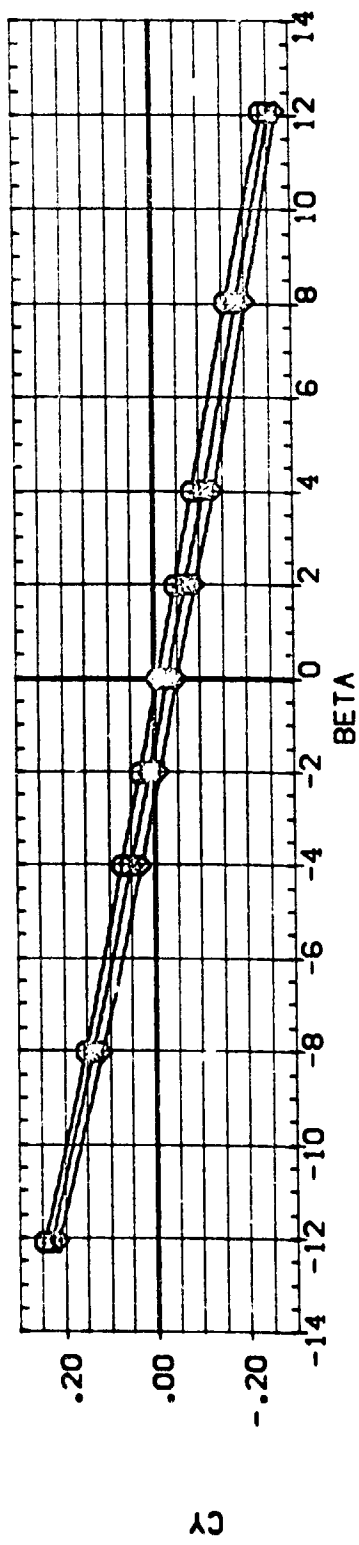
BREF    37.5315    INCHES

XREF    43.5974    INCHES

YREF    16.0000    INCHES

ZREF    16.2000    INCHES

SCALE    .0405    SCALE

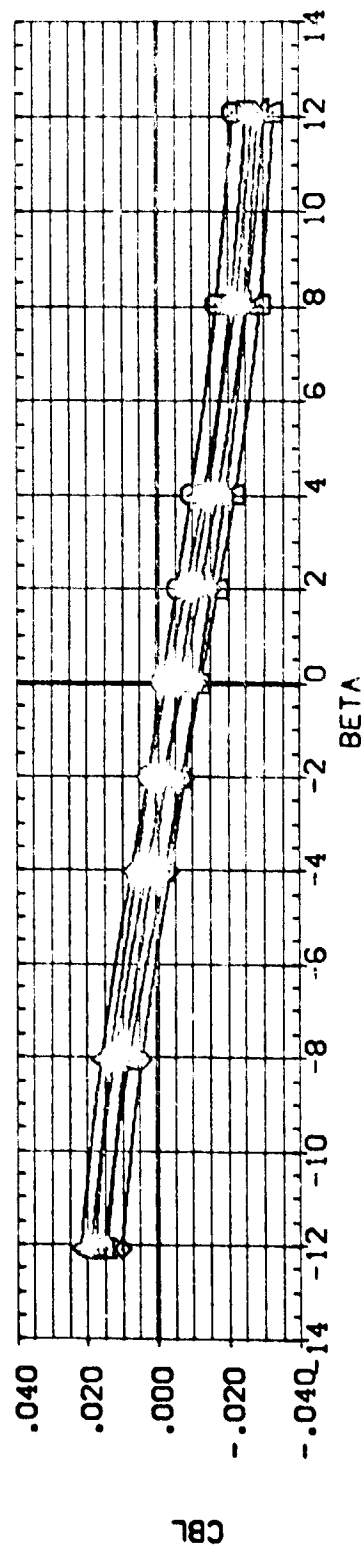
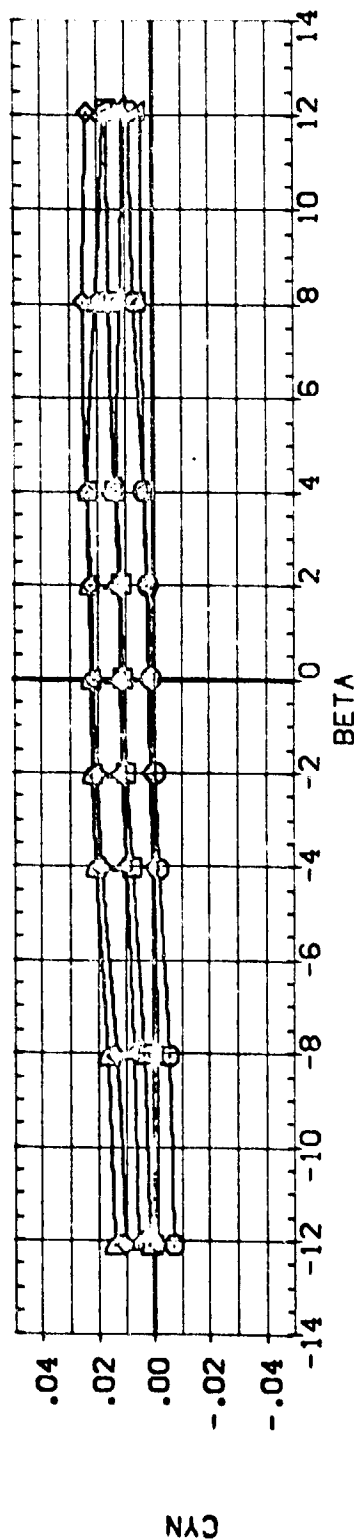
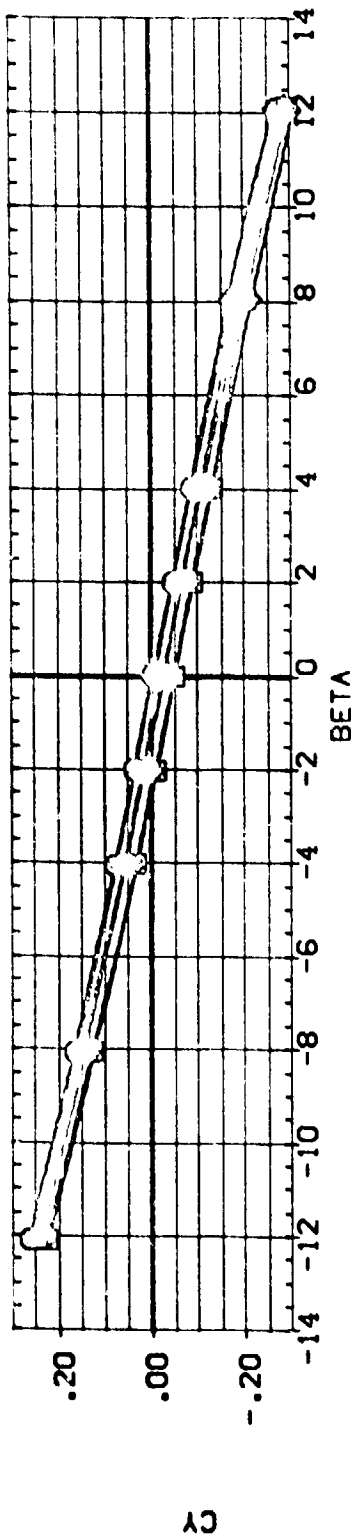


RUDDER EFFECTIVENESS, ABES OFF, ALPHA = 18 DEG.

(A)MACH = .20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	NACA	LIP	REFERENCE INFORMATION
(BD-014)	NR.701.0405 DB8 B16C507F1J3V87V56X10	10.000	.000	.000	4.000	4.4119 SQ.FT.
(BD-034)	NR.701.0405 DB8 B16C507F1J3V87V56X10	10.000	.000	.000	4.000	19.7558 INCHES
(BD-028)	NR.701.0405 DB8 B16C507F1J3V87V56X10	10.000	-7.500	.000	4.000	37.9219 INCHES
(BD-015)	NR.701.0405 DB8 B16C507F1J3V87V56X10	10.000	-15.000	.000	4.000	43.5374 INCHES
(BD-035)	NR.701.0405 DB8 B16C507F1J3V87V56X10	15.000	.000	.000	4.000	.0000 INCHES
(BD-029)	NR.701.0405 DB8 B16C507F1J3V87V56X10	15.000	-7.500	.000	4.000	.0000 INCHES
			-15.000	.000	4.000	16.2000 INCHES
						SCALE
						.0405

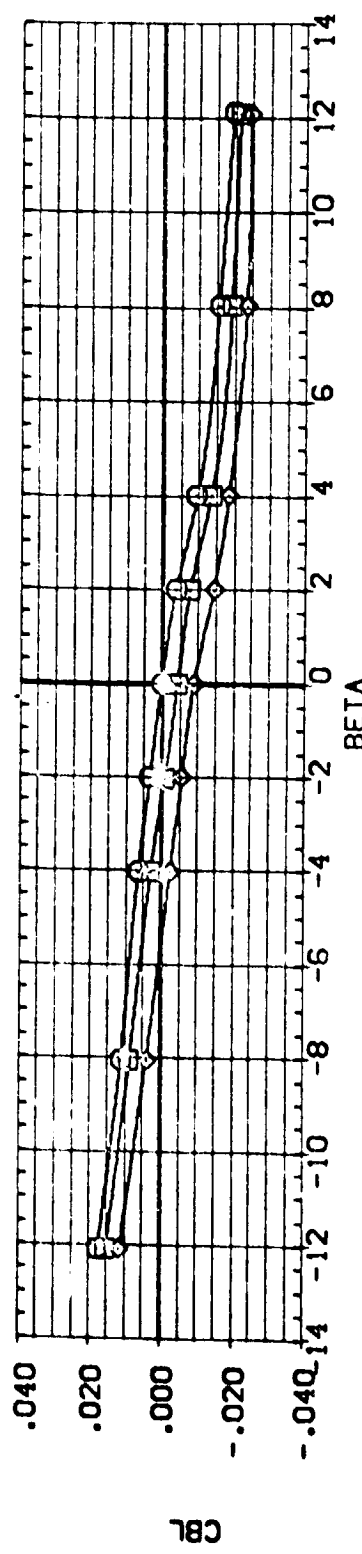
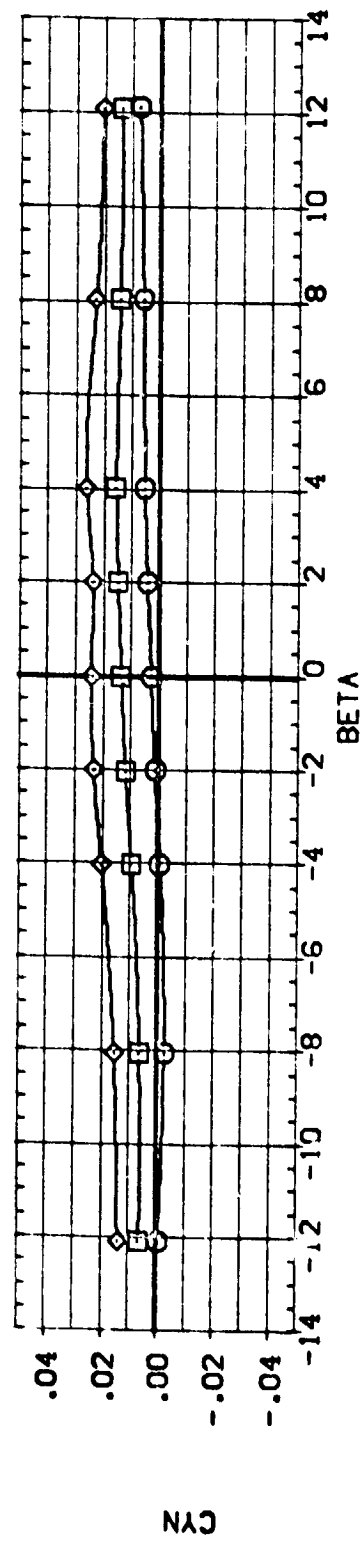
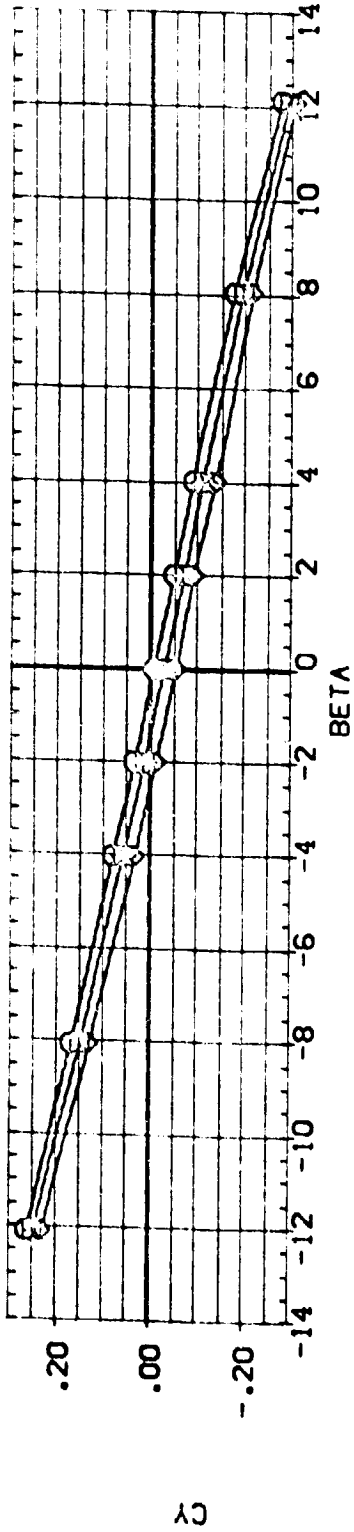


RUDDER EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)(ALPHA= 10 AND 15 DEG.)

(A)MACH = .20

DATA SET SYMBOL    CONFIGURATION (2534, P101)  
 (B04016)    NR.701.0405 CR3 8160507F 13187V3X10  
 (C04016)    NR.701.0405 CR3 8160507F 13187V3X10  
 (B04016)    NR.701.0405 CR3 8160507F 13187V3X10

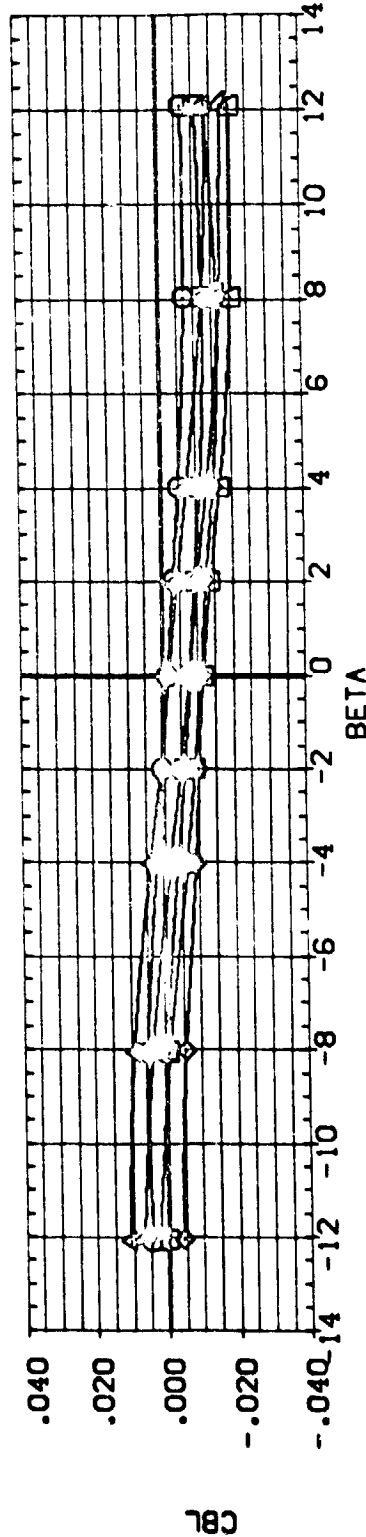
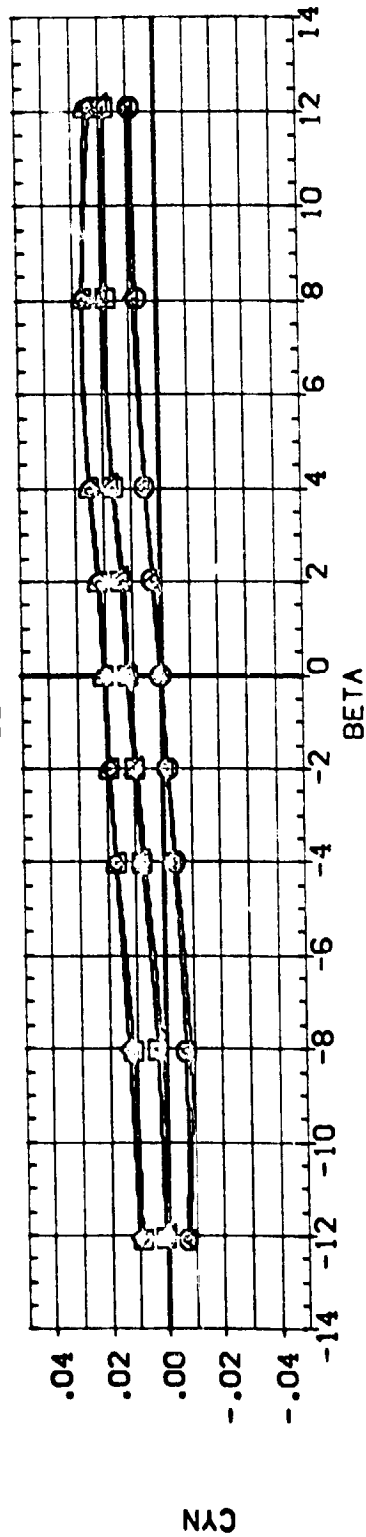
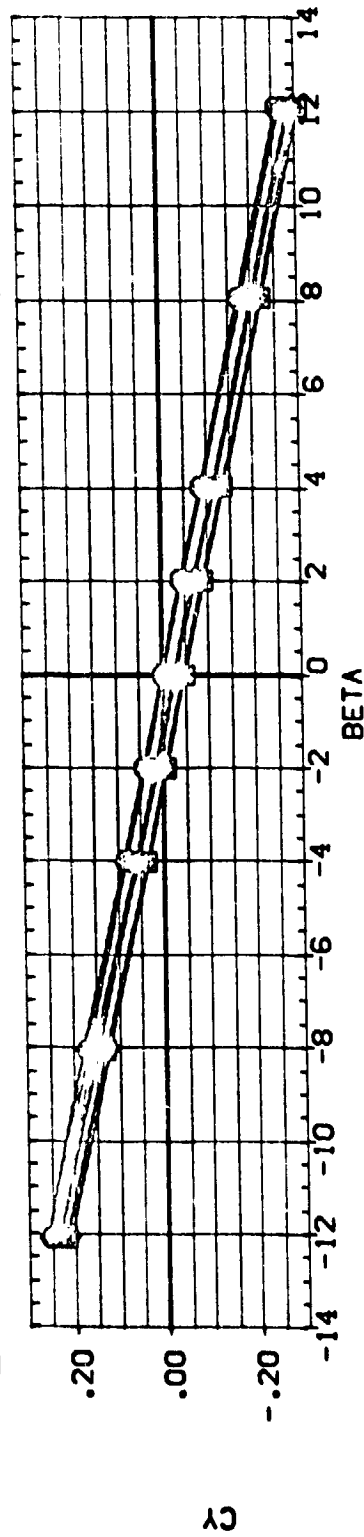
ALPHA    RUDDER    RUDDAL    LIP    REF. CASE INFORMATION  
 18.000    -7.500    .000    4.000    REF    4.4119    SQ. RT.  
 18.000    -15.000    .000    4.000    LREF    19.2338    INC. 45  
 18.000       .000    4.000    BRLE    27.3349    INC. 35  
 XREF    43.6374    INC. 25  
 YREF    16.0000    INC. 25  
 ZREF    16.2000    INC. 25  
 SCALE    .0405    SCALE



RUDDER EFFECTIVENESS, BASELINE ABES LOCATION (4 NACELLES)(ALPHA= 18 DEG.)

(AJMACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	NACA	LIP	REFERENCE INFORMATION
(XD-043)	NR.701.0405 DB8 B16CS07F14387VSRX10	.000	.000	.100	4.000	SREF 4.4119 SQ.FT.
(BD-054)	NR.701.0405 DB8 B16CS07F14387VSRX10	.000	-7.500	.100	4.000	LREF 19.2959 D.F.T.
(BD-058)	NR.701.0405 DB8 B16CS07F14387VSRX10	.000	-15.000	.100	4.000	BREF 37.5219 D.F.T.
(XD-044)	NR.701.0405 DB8 B16CS07F14387VSRX10	5.000	.000	.100	4.000	XREF 43.5974 D.F.T.
(BD-055)	NR.701.0405 DB8 B16CS07F14387VSRX10	5.000	-7.500	.100	4.000	YREF .0000 D.F.T.
(BD-059)	NR.701.0405 DB8 B16CS07F14387VSRX10	5.000	-15.000	.100	4.000	ZREF 16.2000 D.F.T.
						SCALE .0405



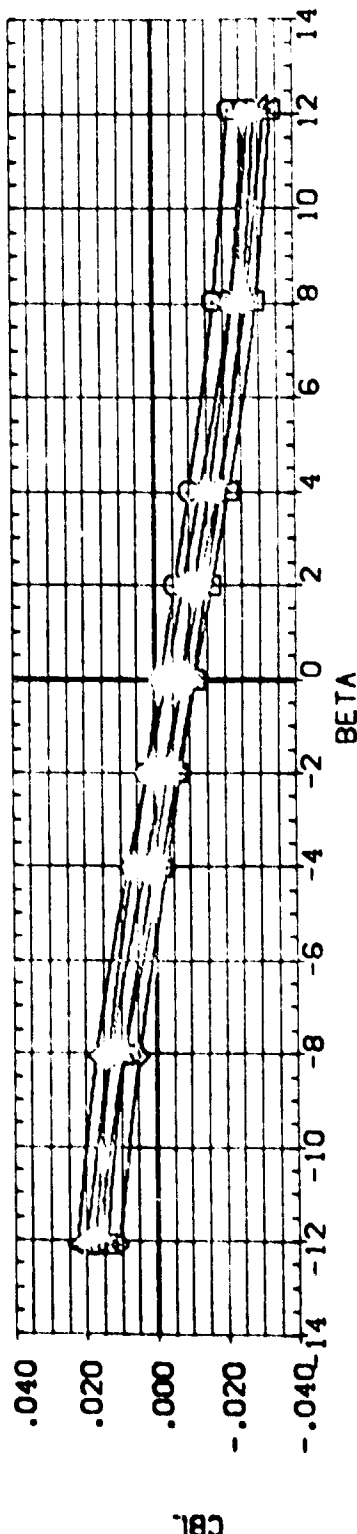
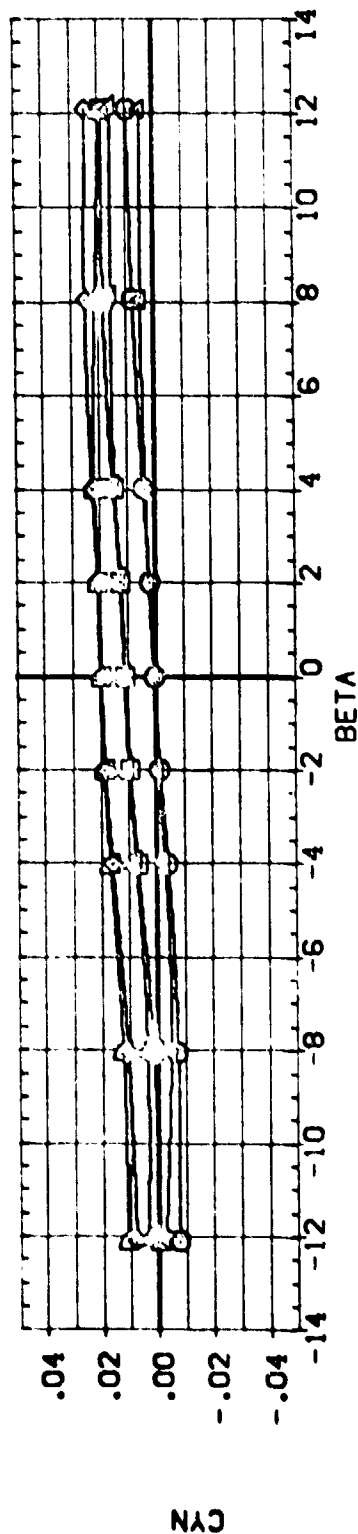
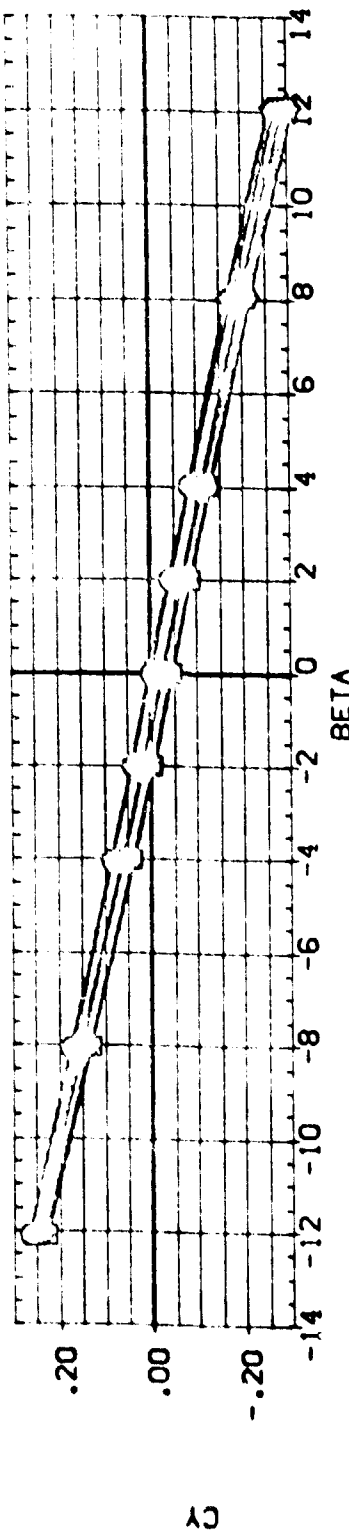
RUDDER EFFECTIVENESS, ABES MOVED AFT .100 NAC. LENGTH, ALPHA= 0 AND 5 DEG.)

(A)MACH = .20

DATA SET SYMB. COEFFICIENT DESCRIPTION

DATA SET SYMB.	COEFFICIENT DESCRIPTION	ALPHA	RUDER	WAVE	LIP	REFERENCE IN INCHES
(00045)	0.8 816507 143875310	0.000	0.00	0.00	4.000	0.00
(00046)	0.8 816507 143875310	0.000	-7.500	0.00	4.000	0.00
(00047)	0.8 816507 143875310	0.000	-15.000	0.00	4.000	0.00
(00048)	0.8 816507 143875310	0.000	0.00	0.00	4.000	0.00
(00049)	0.8 816507 143875310	0.000	-7.500	0.00	4.000	0.00
(00050)	0.8 816507 143875310	0.000	-15.000	0.00	4.000	0.00
(00051)	0.8 816507 143875310	0.000	0.00	0.00	4.000	0.00

SCALE 16.0000

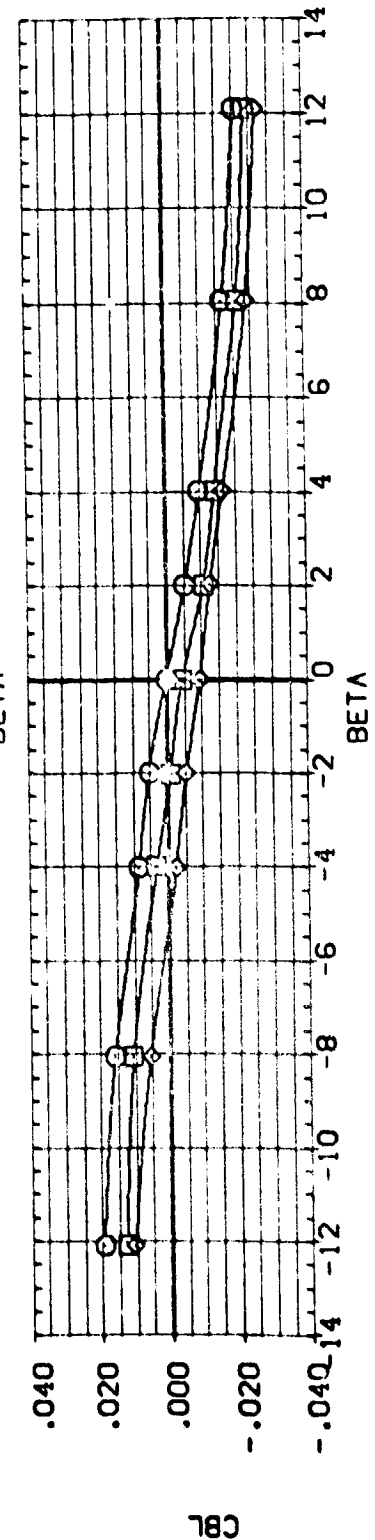
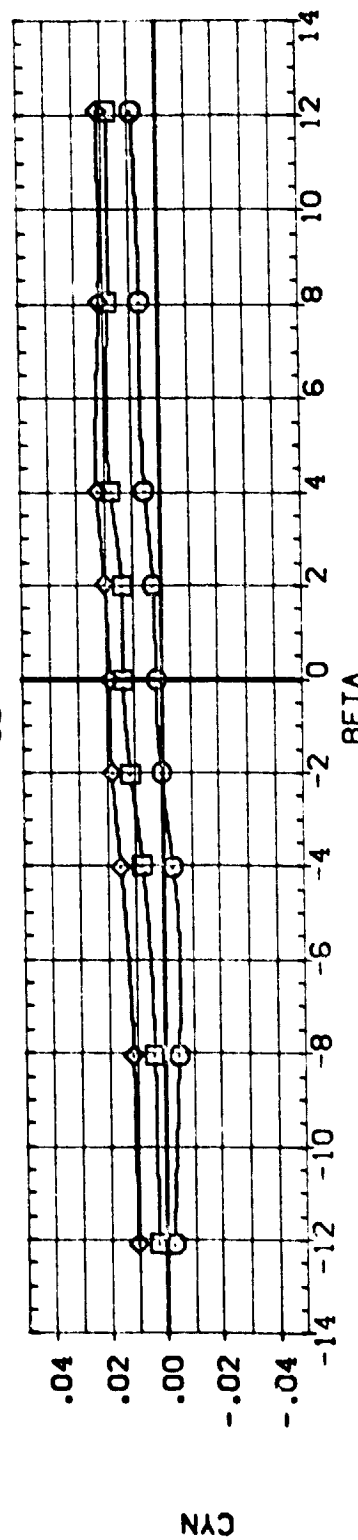
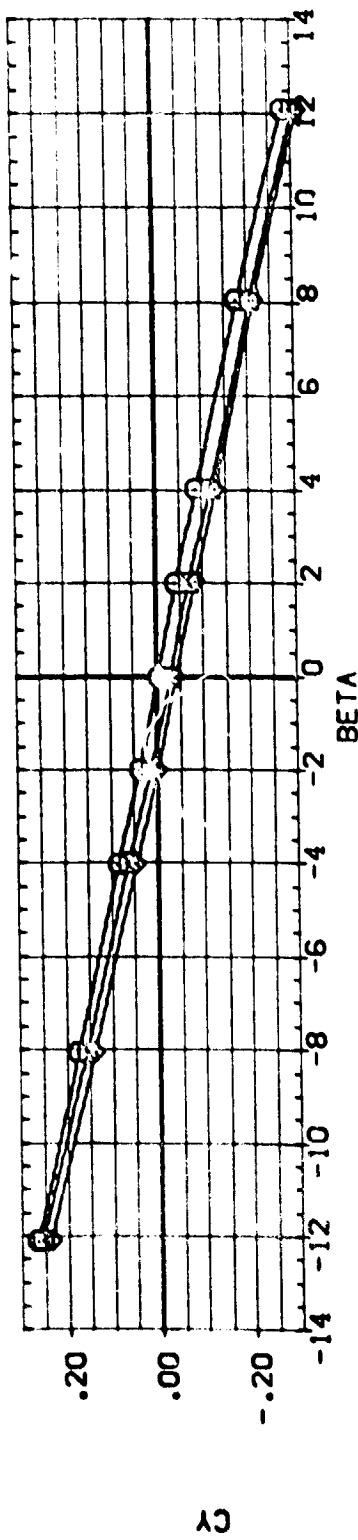


RUDDER EFFECTIVENESS, ABES MOVED AFT .10( NAC. LENGTH, ALPHA= 10 AND 15 DEG.)

(A)MACH = .20

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	NACAL	LIP	REFERENCE INFORMATION
(X01047)	NR.701.0405 098 B16C507F 143.67V5X10	18.000	.000	.100	4.000	SREF 4.4119 SQ.FT. IND-ES
(B01058)	NR.701.0405 098 B16C507F 143.67V5X10	18.000	-7.500	.100	4.000	LREF 19.2309 IND-ES
(B01062)	NR.701.0405 098 B16C507F 143.67V5X10	18.000	-15.000	.100	4.000	BREF 37.9349 IND-ES
						XREF 43.5374 IND-ES
						YREF .0000 IND-ES
						ZREF 16.2000 IND-ES
						SCALE .0405



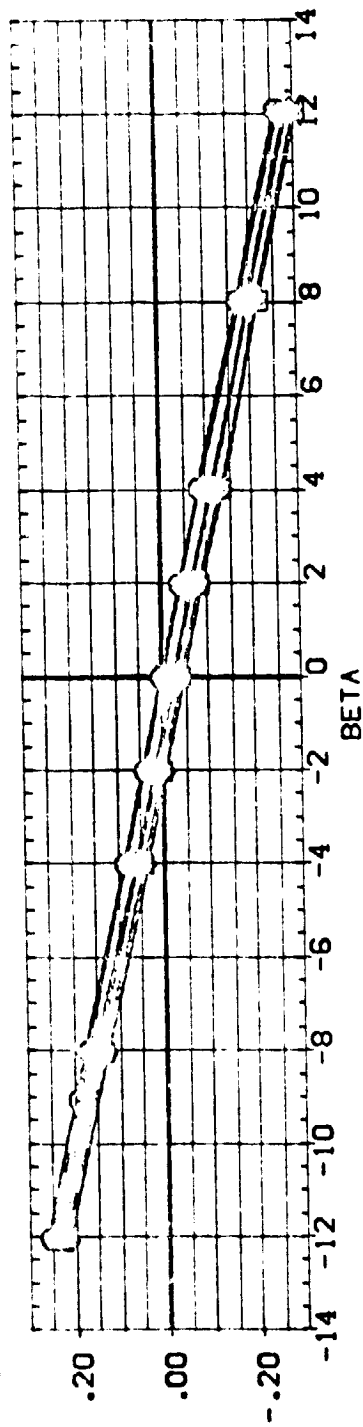
RUDDER EFFECTIVENESS, ABES MOVED AFT .100 NAC. LENGTH, ALPHA= 18 DEG. )

(A)MACH = .20

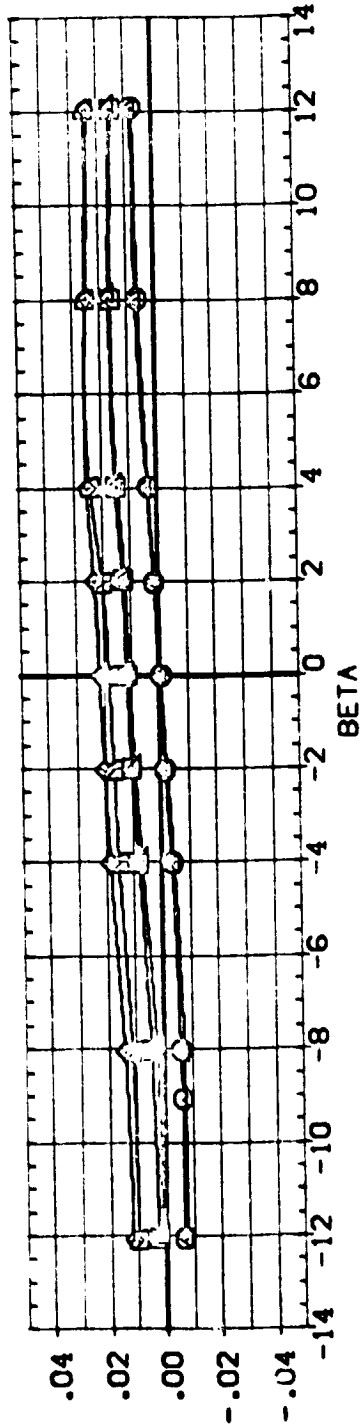
DATA SET 57-800  
 (BDN88)  
 (BDN89)  
 (BDN90)  
 (BDN91)  
 (BDN92)  
 (BDN93)  
 (BDN94)

CONFIGURATION DESCRIPTION  
 NR.701 .0405 C33 B16507F 14.34875X10  
 NR.701 .0405 C33 B16507F 14.34875X10  
 NR.701 .0405 C33 B16507F 14.34875X10  
 NR.701 .0405 C33 B16507F 14.34875X10  
 NR.701 .0405 C33 B16507F 14.34875X10  
 NR.701 .0405 C33 B16507F 14.34875X10  
 NR.701 .0405 C33 B16507F 14.34875X10

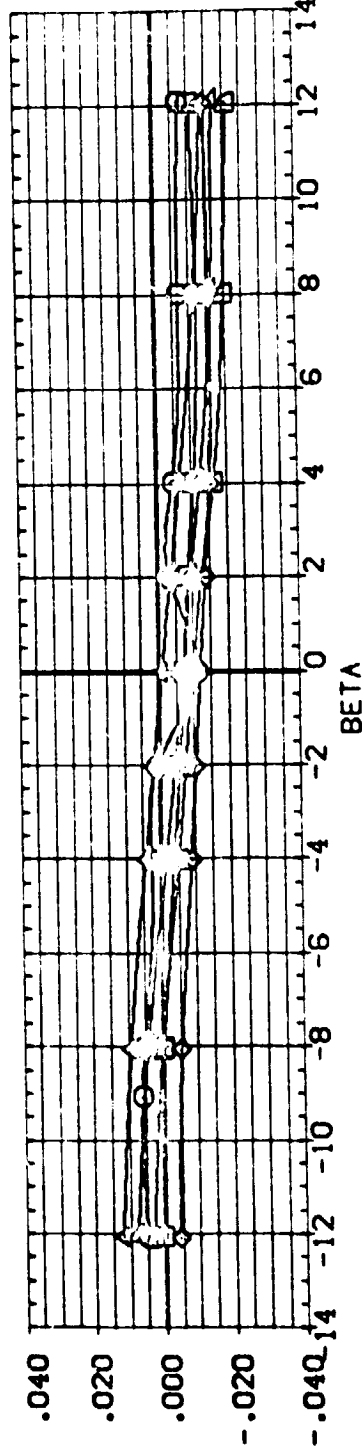
ALPHA .000 .000 .000 .000 .000 .000 .000  
 RUDDER .000 .000 .000 .000 .000 .000 .000  
 NACA .250 .250 .250 .250 .250 .250 .250  
 LIP 1.000 1.000 1.000 1.000 1.000 1.000 1.000  
 REFERENCE INFORMATION  
 SREF 4.4119  
 LREF 19.1313  
 XREF 37.1249  
 YREF 79.1374  
 ZREF 16.2000  
 SCALE .0405



CY



CYN

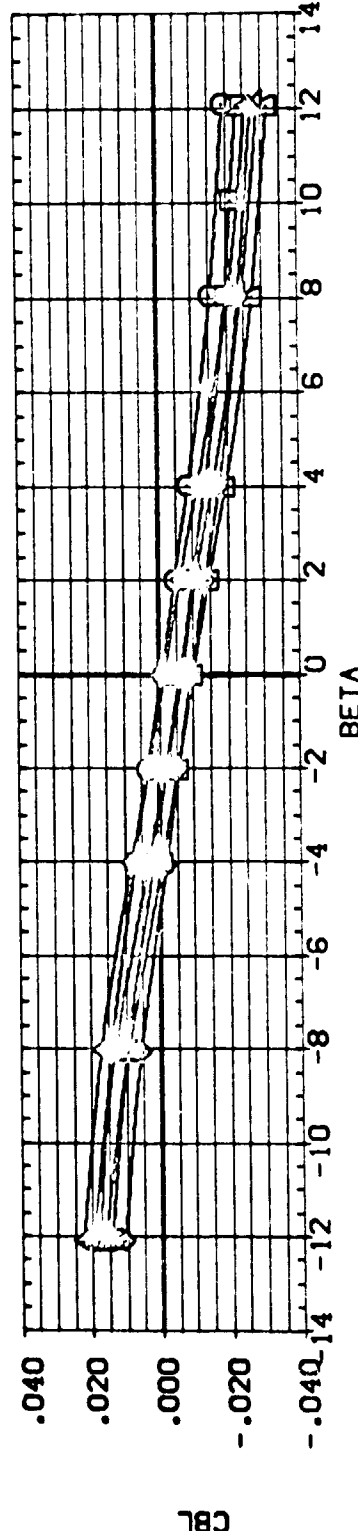
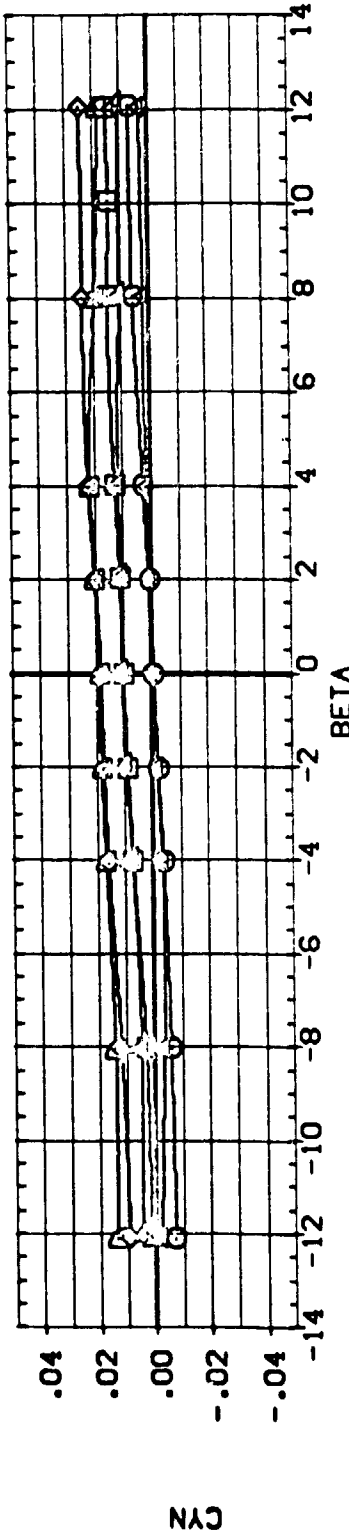
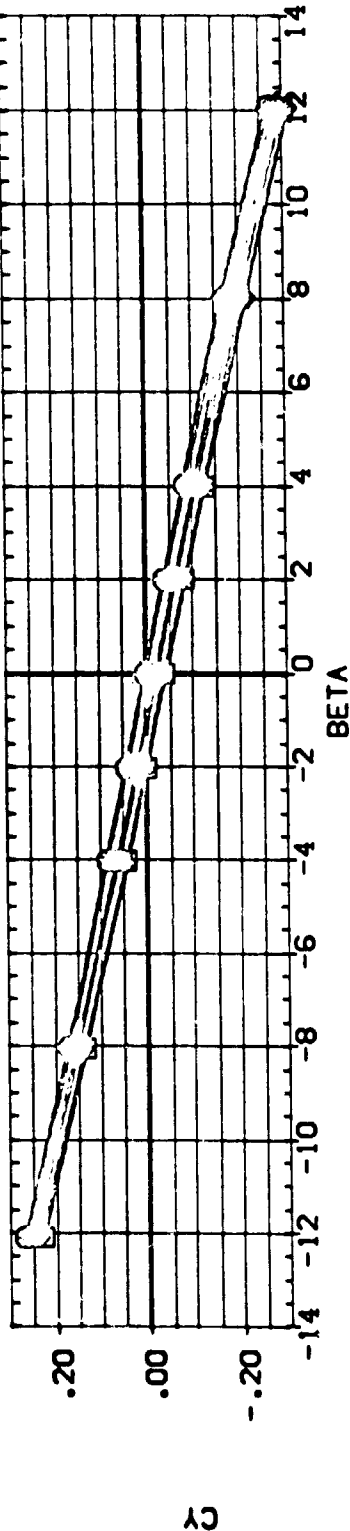


CBL

RUDDER EFFECTIVENESS, ABES MOVED FWD/AFT .25( NAC.LGTH, ALPHA= 0 AND 5 DEG.)  
 (A)MACH = .20



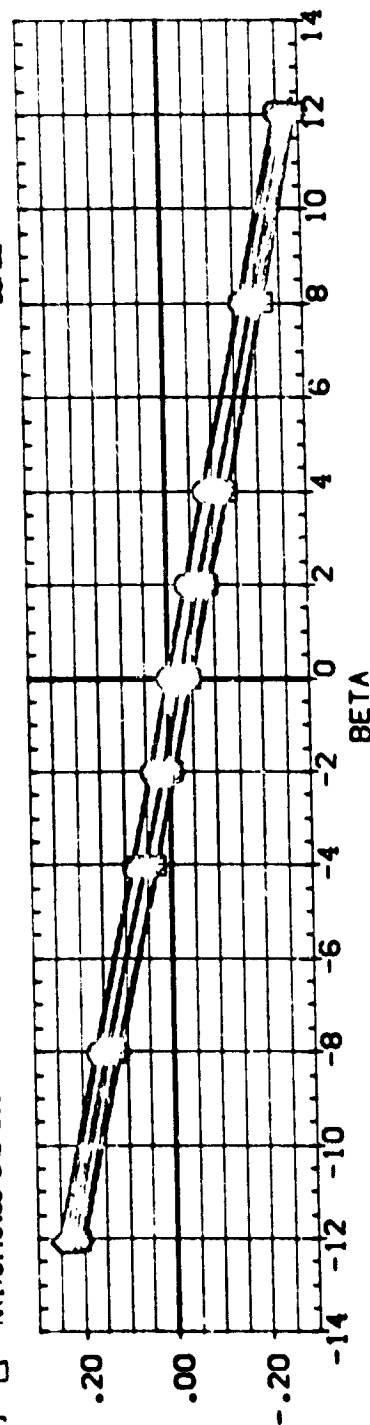
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	NACA	LIP	REFERENCE INFORMATION
(BDV091)	NR.701.0405 033 816CS07F J3V87V5KX10	10.000	.000	.250	4.000	SREF 4.4119 SQ.FT.
(BDV098)	NR.701.0405 033 816CS07F J3V87V5KX10	10.000	-7.500	.250	4.000	LRPF 19.2398 INCHES
(BDV105)	NR.701.0405 033 816CS07F J3V87V5KX10	10.000	-15.000	.250	4.000	BRPF 37.5319 INCHES
(BDV092)	NR.701.0405 033 816CS07F J3V87V5KX10	15.000	.000	.250	4.000	XRPF 43.5974 INCHES
(BDV099)	NR.701.0405 033 816CS07F J3V87V5KX10	15.000	-7.500	.250	4.000	YRPF .0000 INCHES
(BDV106)	NR.701.0405 033 816CS07F J3V87V5KX10	15.000	-15.000	.250	4.000	ZRPF 16.2000 INCHES
						SCALE .0405



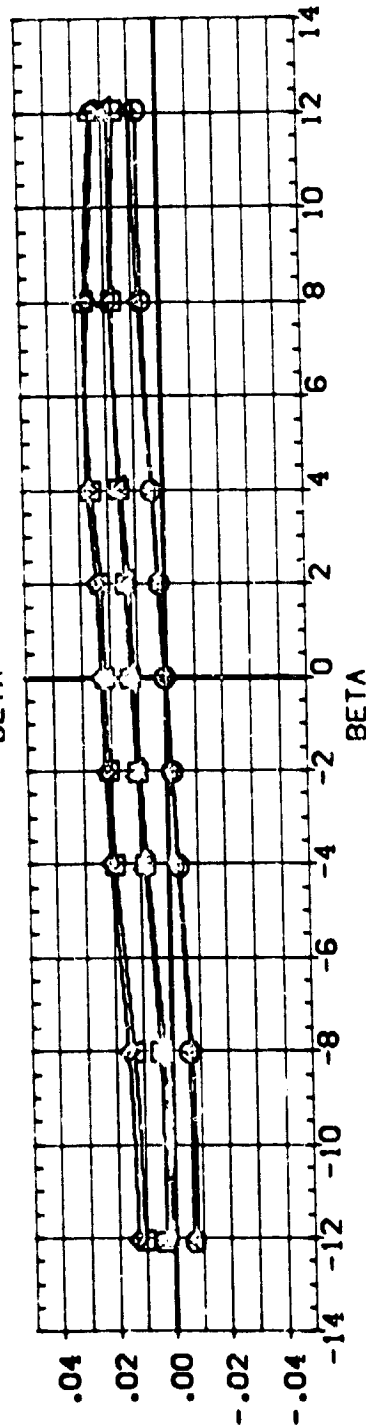
RUDDER EFFECTIVENESS, ABES MOVED FWD/AFT .25( NAC.LGTH, ALPHA= 10 AND 15 DEG.)



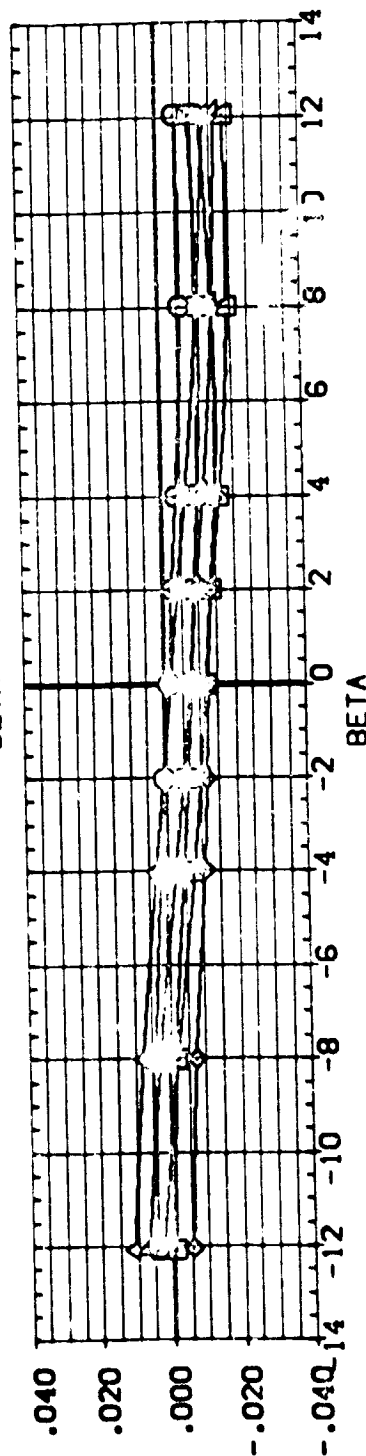
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	NACA	LIP	REFERENCE INFORMATION
(BDN167)	NR.701.0405 098 B16C507F 14487V56X10	.000	.000	.490	1.000	SREF 4.4119 SQ.FT. IND-ES
(BDN189)	NR.701.0405 093 B16C507F 14487V56X10	.000	-7.500	.490	1.000	LREF 19.2959 IND-ES
(BDN195)	NR.701.0405 073 B16C507F 14487V56X10	.000	-15.000	.490	1.000	BREF 37.9349 IND-ES
(BDN168)	NR.701.0405 093 B16C507F 14487V56X10	5.000	.000	.490	1.000	YMRP 43.5974 IND-ES
(BDN190)	NR.701.0405 093 B16C507F 14487V56X10	5.000	-7.500	.490	1.000	ZMRP 16.2000 IND-ES
(BDN197)	NR.701.0405 093 B16C507F 14487V56X10	5.000	-15.000	.490	1.000	SCALE .0405 IND-ES



CY



CYN

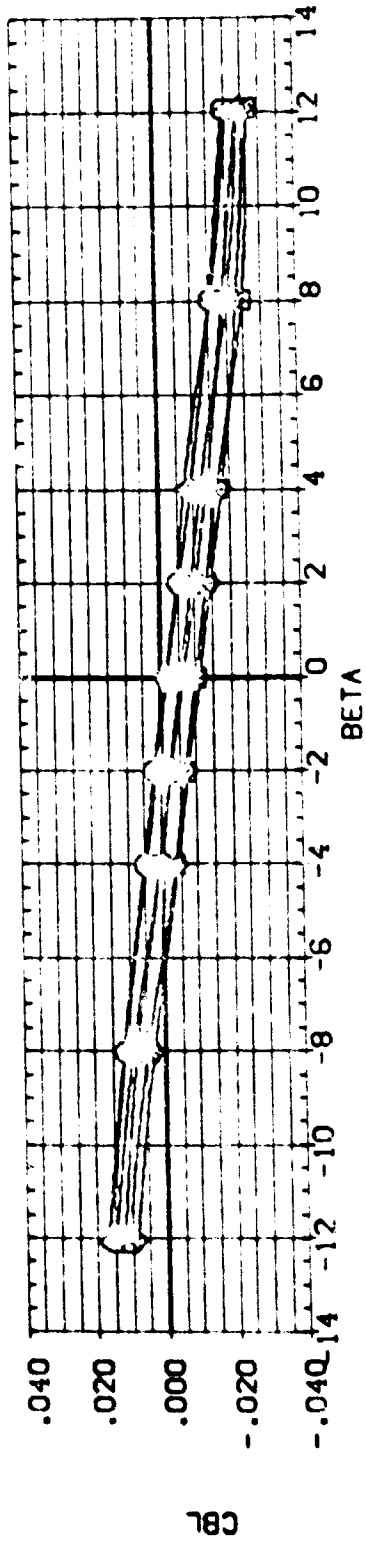
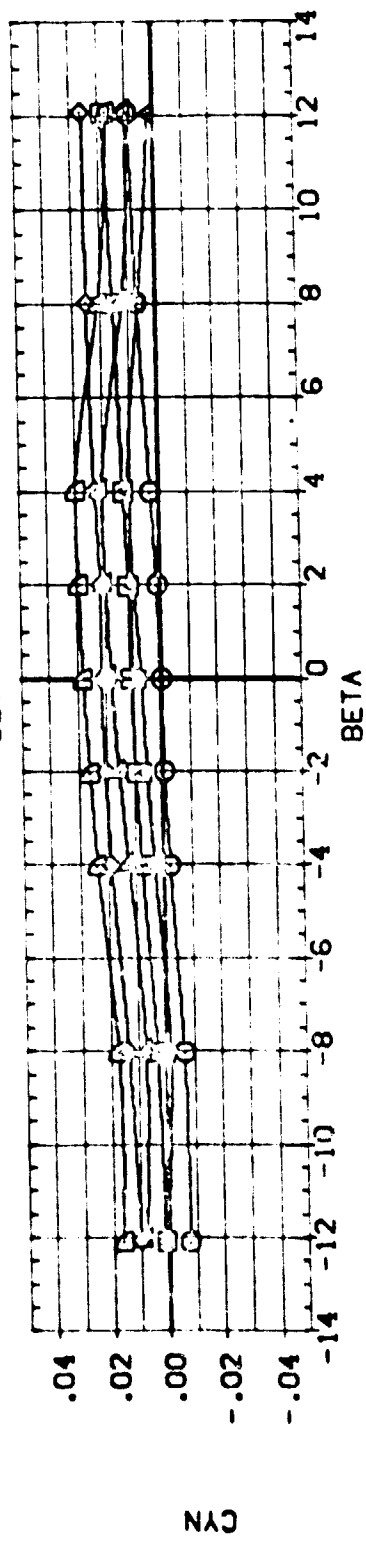
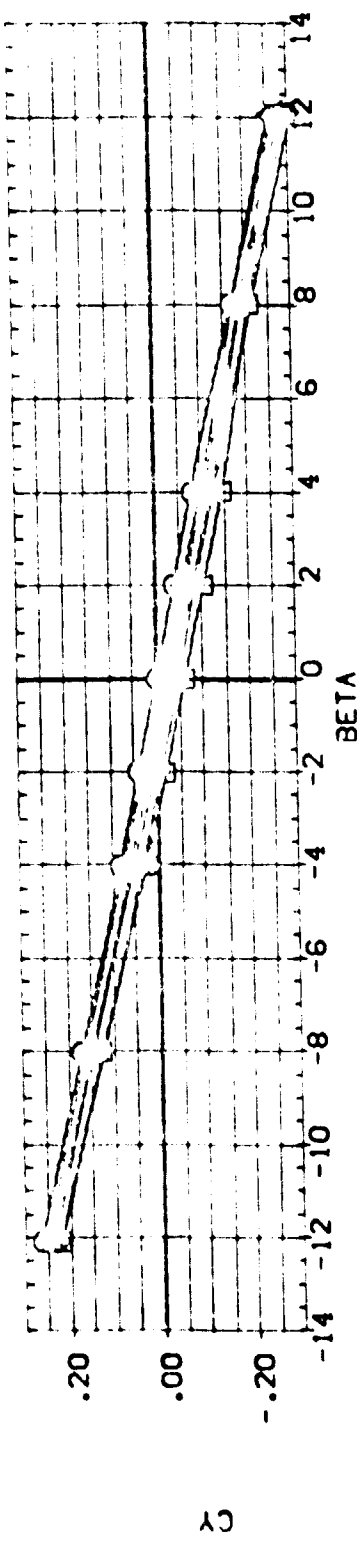


CBL

RUDDER EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES, ALPHA= 0 AND 5 DEG.

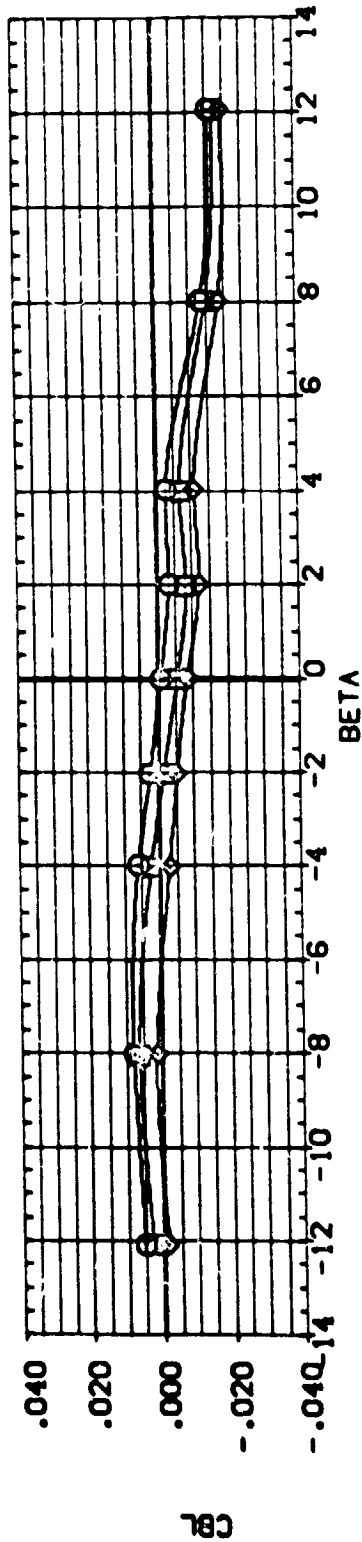
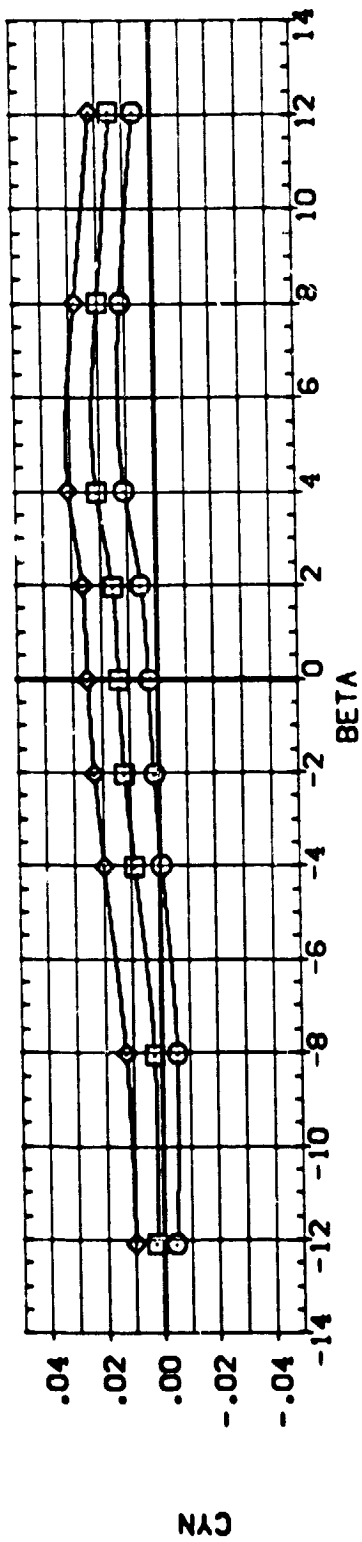
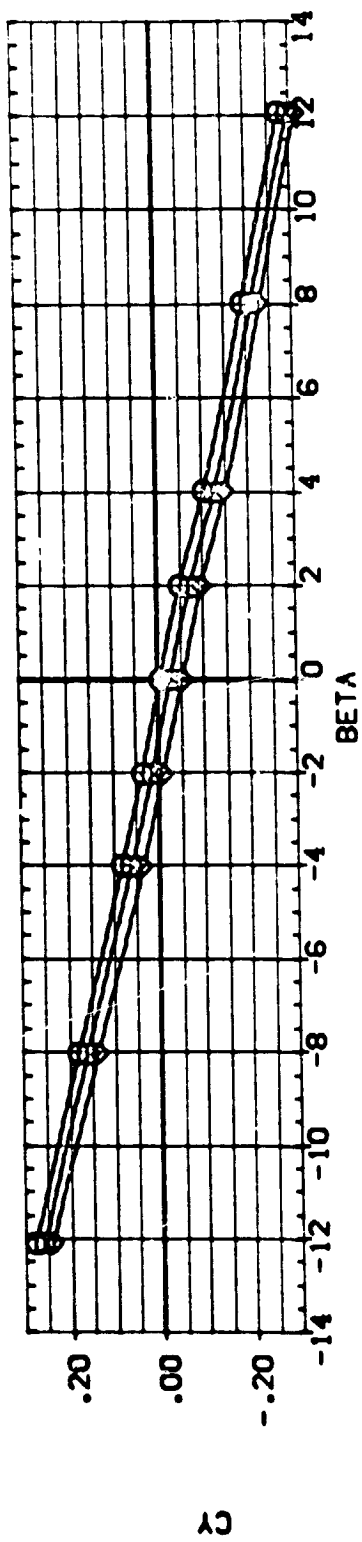
(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	NUDGA	LIP	DEPENDENCE INFORMATION
[001]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	0.00	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[002]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-7.500	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[003]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-15.000	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[004]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	0.00	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[005]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-7.500	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[006]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-15.000	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[007]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	0.00	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[008]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-7.500	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[009]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-15.000	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[010]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	0.00	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[011]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-7.500	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[012]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	-15.000	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00
[013]	0.00 0.00 0.00 0.00 0.00 0.00 0.00	10.000	0.00	4.50	4.000	0.00 0.00 0.00 0.00 0.00 0.00 0.00



RUDDER EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES, ALPHA= 10 AND 15 DEG.

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	RUDDER	NACA	LIP	REFERENCE INFORMATION
(80N171)	NR.701.0405 038 818C507K J4V87V5KX10	18.000	.000	.490	4.000	SREF 4.4119 SQ.FT.
(80N193)	NR.701.0405 038 818C507K J4V87V5KX10	18.000	-7.500	.490	4.000	LREF 19.2389 INCHES
(80N200)	NR.701.0405 038 818C507K J4V87V5KX10	18.000	-15.000	.490	4.000	BREF 37.5319 INCHES
						XREF 43.5574 INCHES
						YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405

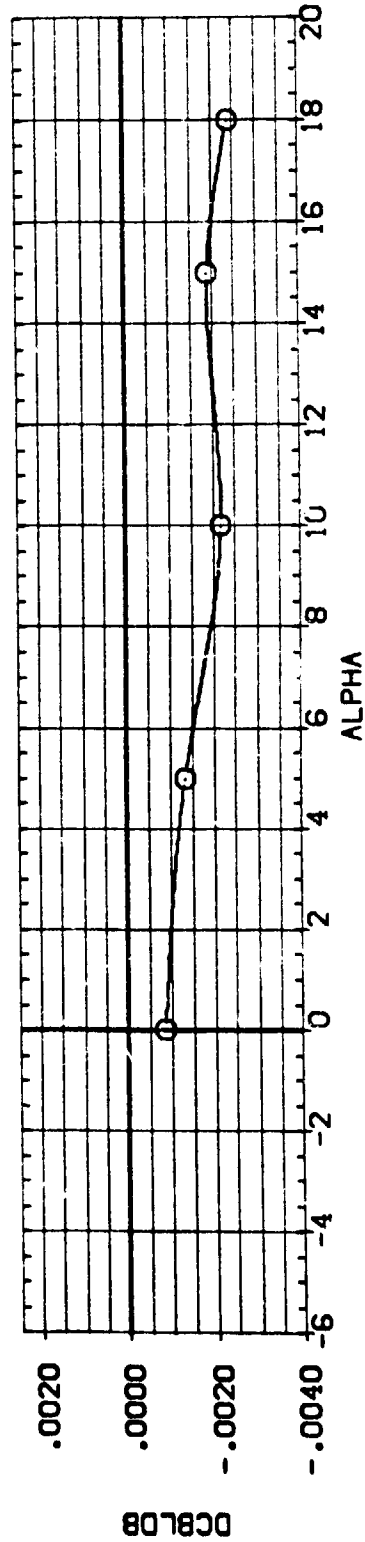
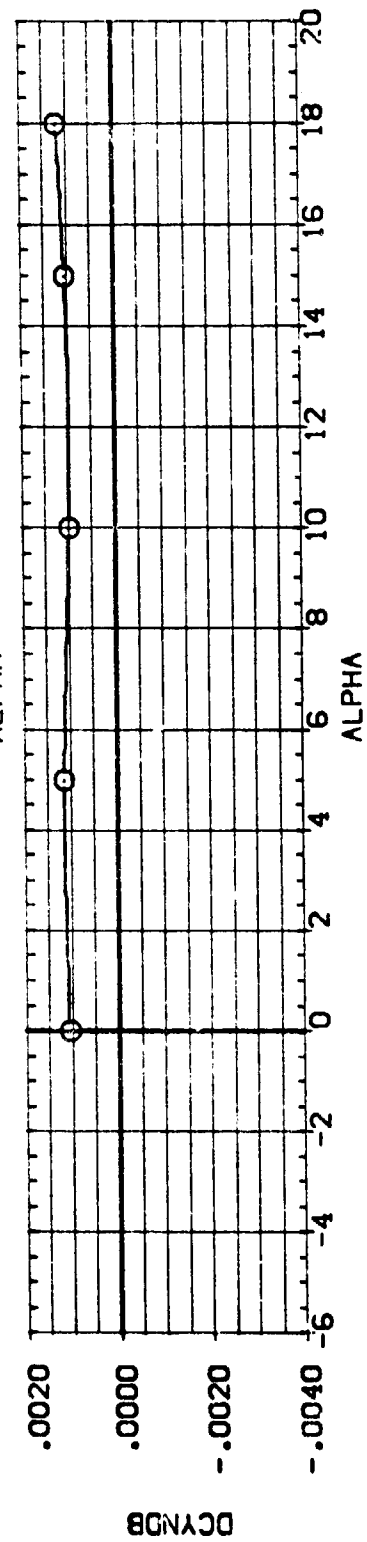
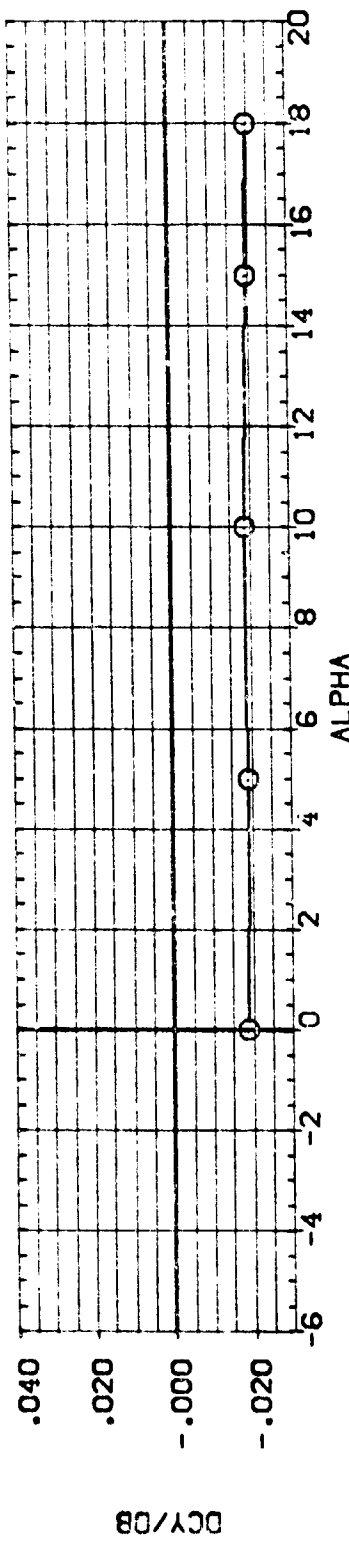


RUDDER EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES, ALPHA= 18 DEG.

(A)MACH = .20

NR.701.0405 OR9 816C50751W37V5X9 (BDN135)

SYMBOL		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION	
O	WACH	.201	B.FLAP	.000	ALPHA	3REF	50.FT.
	REFLAP	.000	REFLAP	.000	ALPHA	LIFE	INCHES
	ATLON	.000	SURFON	10.000	BDN135	BASE	INCHES
				18.000	BDN137	XREF	INCHES
					BDN139	YREF	INCHES
						ZREF	INCHES
						SCALE	SCALE

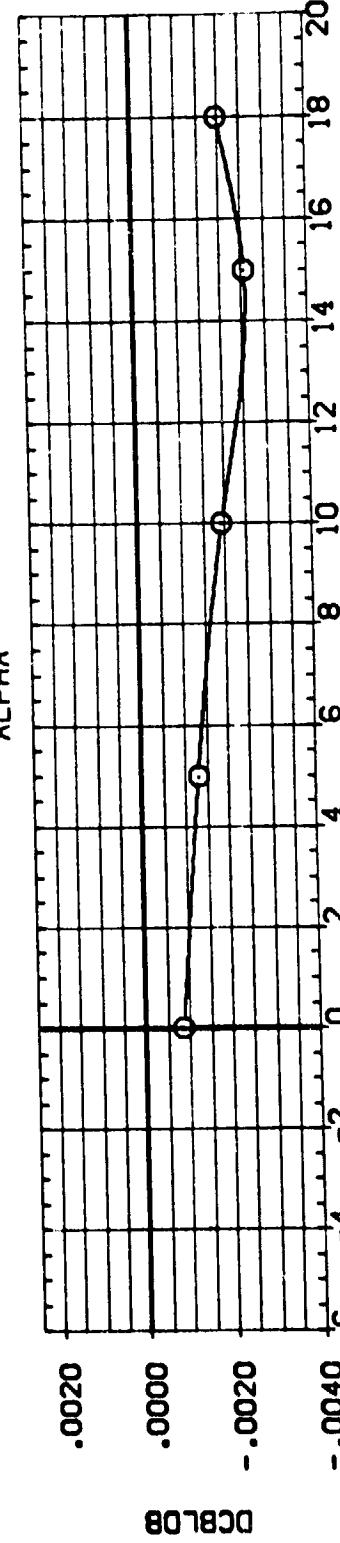
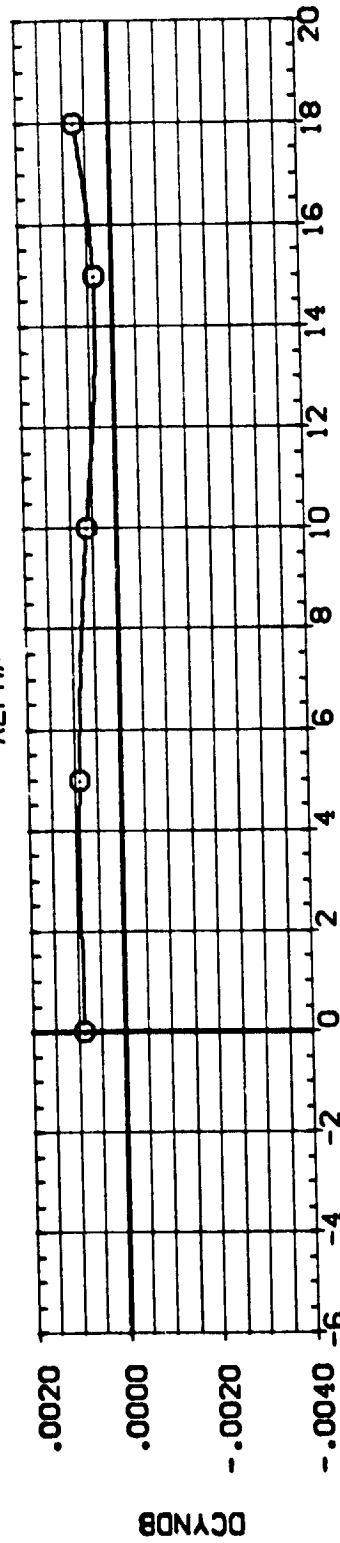
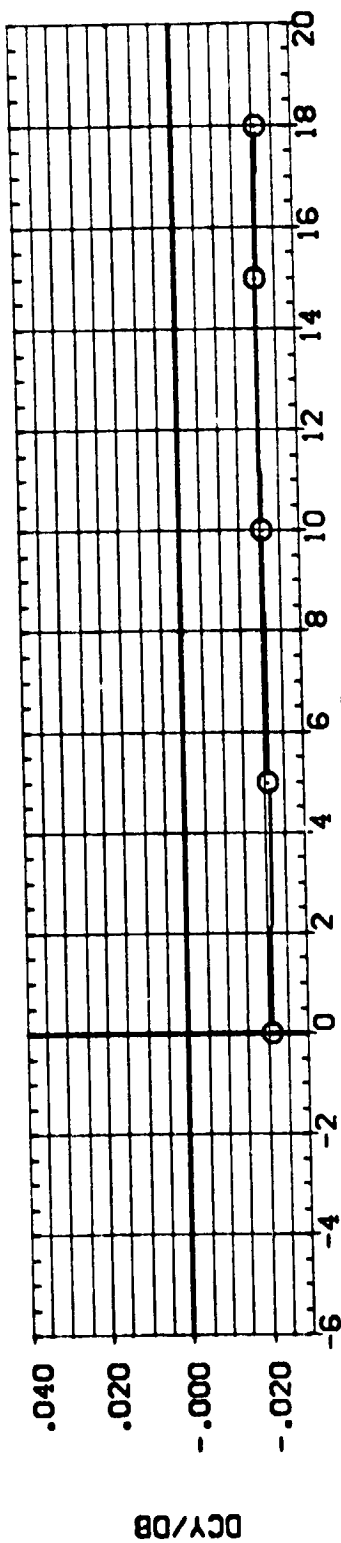


LAT-DIRECT. DERIVATIVES. ABES OFF

117

NR.701.0405 ORB B16C507F1J3W87V5X10 (BDN012)

SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		B-FLAP	-18.000	RUDDER	.000	DATASET	ALPHA	SREF	50.FT.	INCHES	SCALE
O	.201	RFLARE	.000	ELEVON	.000	BDN012	5.000	REF	19.2999	INCHES	
		AILERON	.000	NACVL	.000	BDN014	10.000	SREF	37.9349	INCHES	
		LIP	4.000		.000	BDN016	18.000	YREF	43.5874	INCHES	
								ZREF	16.2000	INCHES	
								SCALE	.0405		

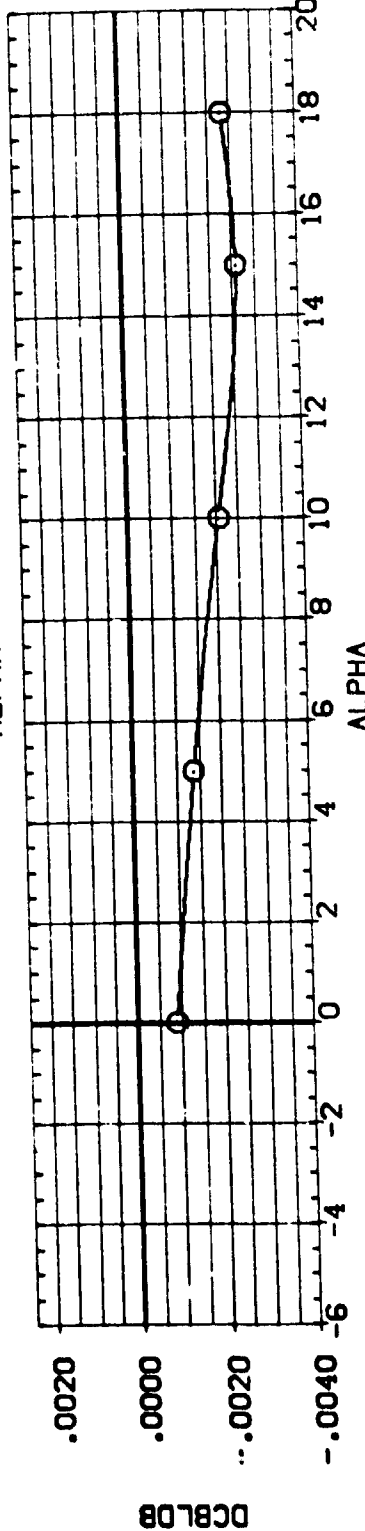
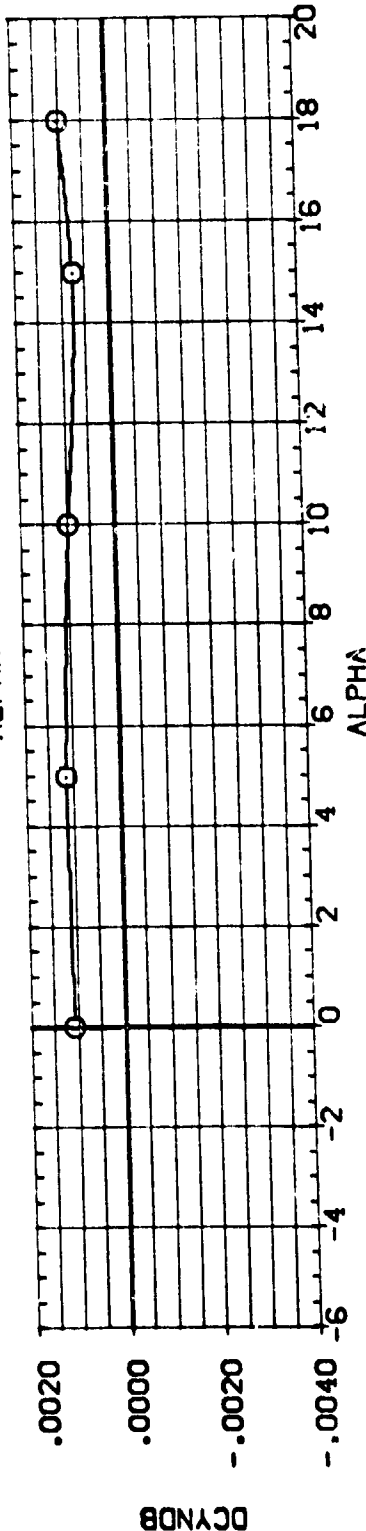
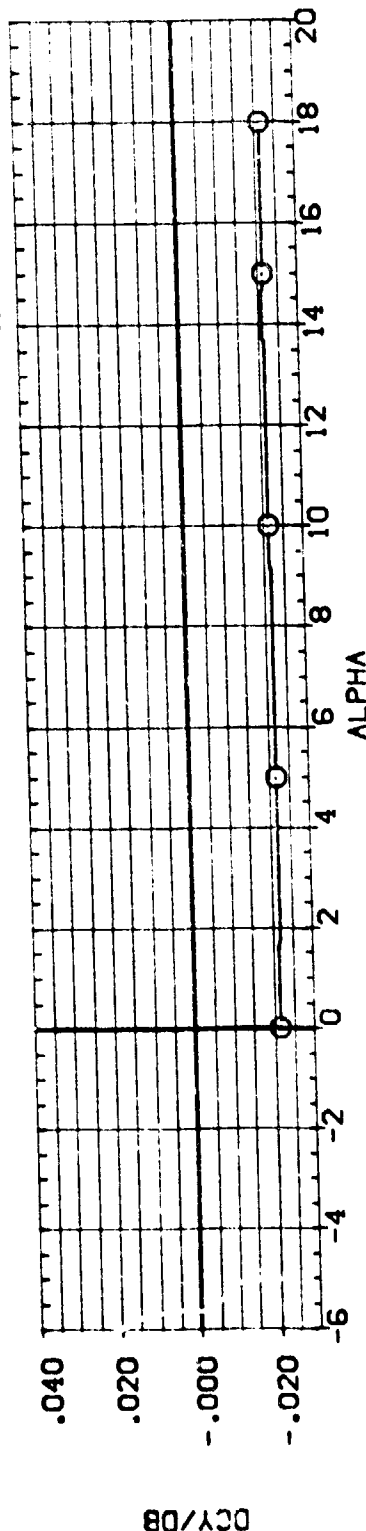


LAT-DIRECT. DERIVATIVES, BASELINE ABES LOCATION (4 NACELLES)

[XON043]

NR.701.0405 GR8 B16C5D7F1J3J27V5X10

SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE		DATASET		ALPHA		REFERENCE INFORMATION			
		θ.FLAP	RUDDER	ELEVON	NACVL	ALPHA	SCALE	XON043	XON046	5.000	15.000	SREF	INC-ES	INC-ES	SCALE
0	.201	8.FLAP	-18.000	.000	.000	.000	.000	.000	.000	.000	.000	4.4119	19.2999	37.9349	43.2974
		REFLARE	.000	.000	.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000
		AILLON	.000	.000	.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000
		LIP	4.000									16.2000	16.2000	16.2000	16.2000



LAT-DIRECT. DERIVATIVES, ABES MOVED FORWARD .10(NACELLE LENGTH)(4 NACELLES)

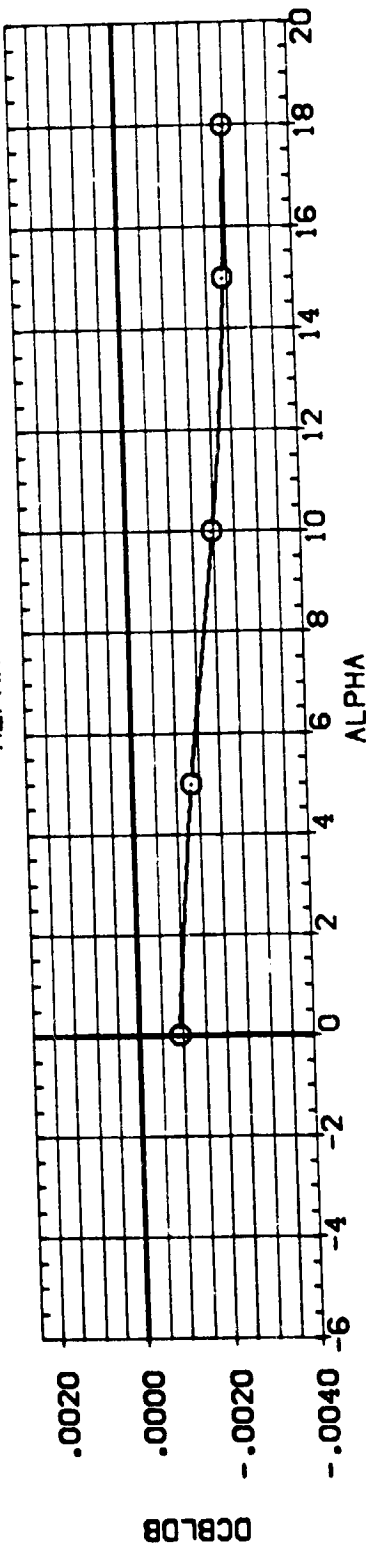
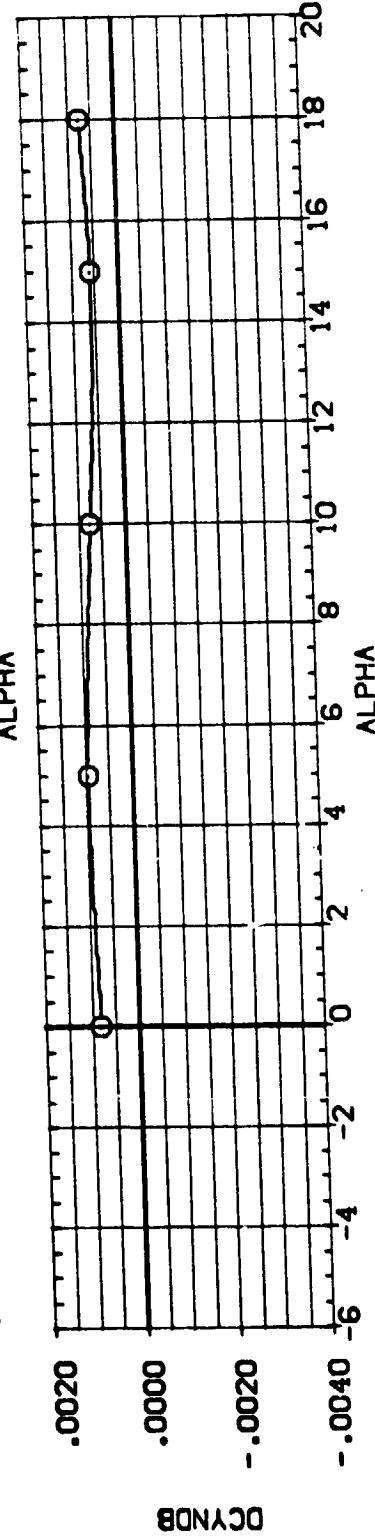
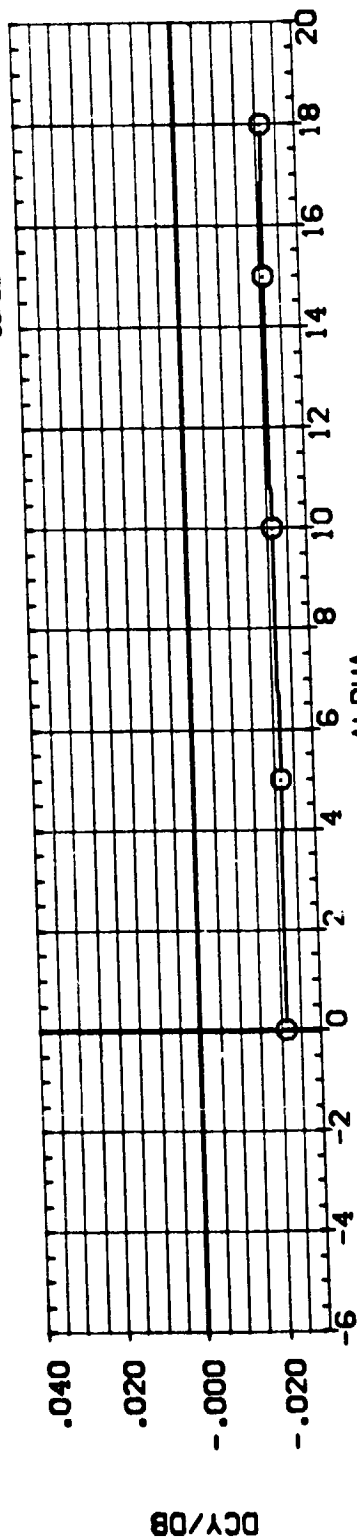




(BDN089)

NR.701.0405 ORB B16C507F1J3W87V5X10

SYMBOL	MACH	PARAMETRIC VALUES	DATA SOURCE	DATA SET	ALPHA	SREF	REFERENCE INFORMATION
O	.201	B-FLAP -18.000 RFLARE .000 AILRON .000 LIP 4.000	ALPHA .000 10.000 18.000	.000 BDN089 .250 BDN091 BDN083	5.000 15.000	LREF BREF XREF YREF ZREF SCALE	50.FT. INCHES INCHES INCHES INCHES INCHES SCALE

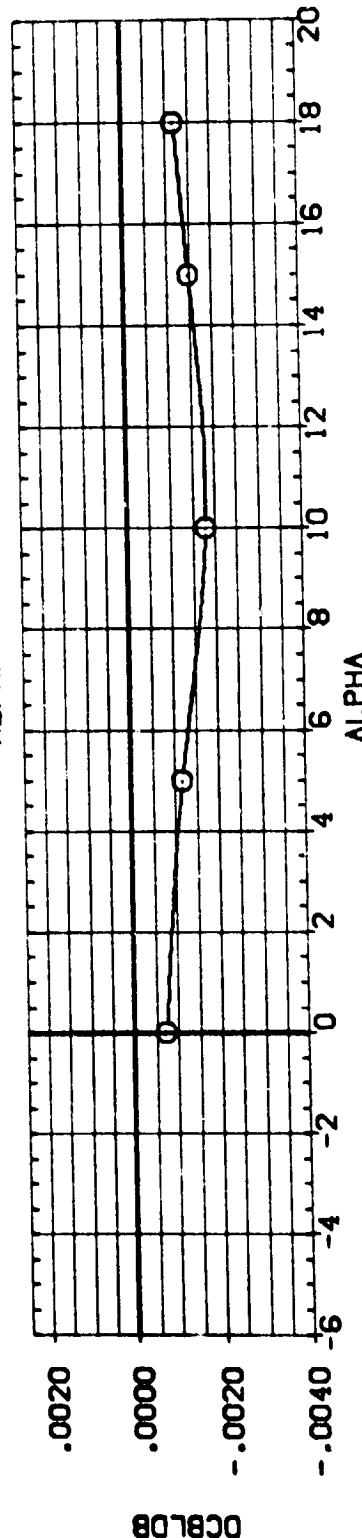
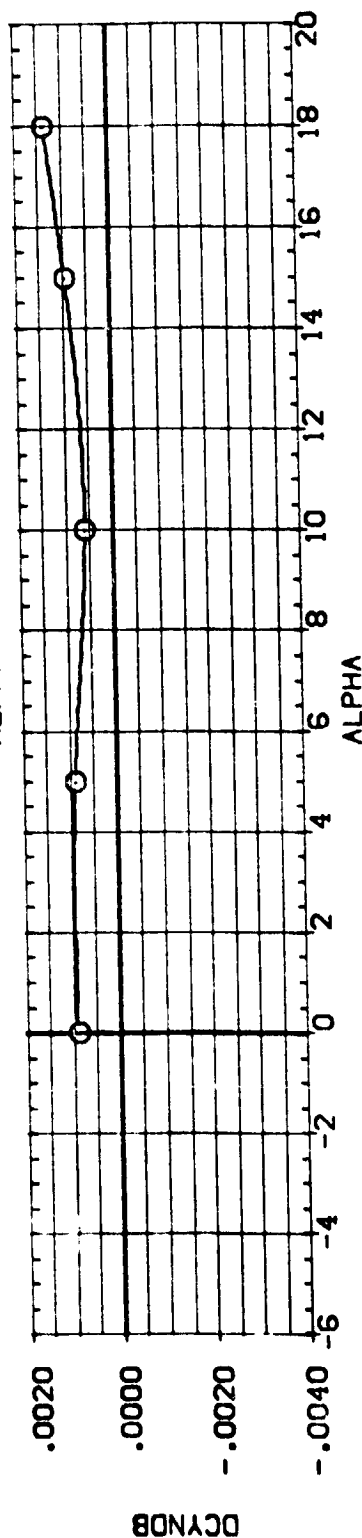
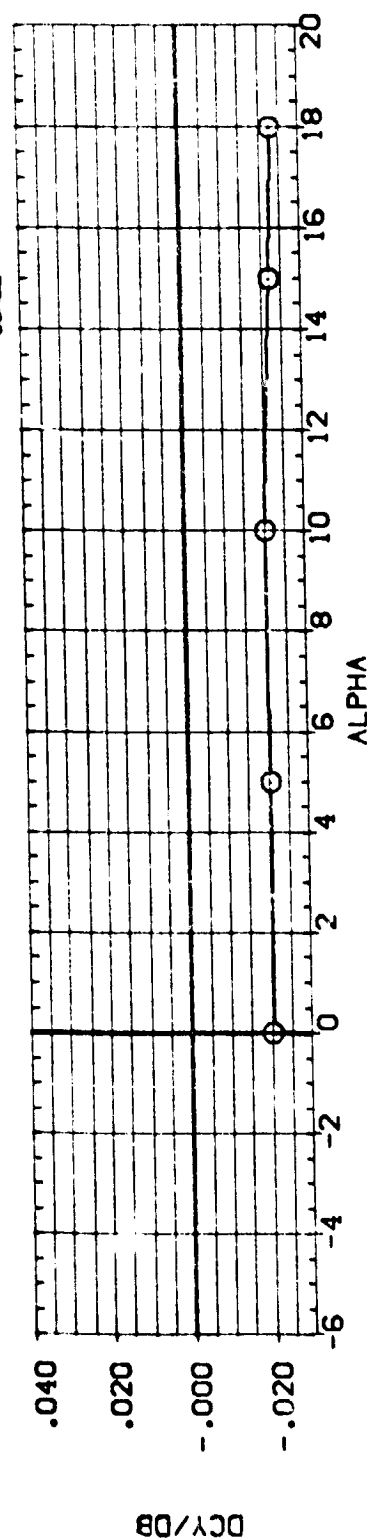


LAT-DIRECT. DERIVATIVES. INBD ABES MOVED FWD,OUTBD AFT .25(NAC. LGTH) 4 NACELLES

NR. 701.0405 GR8 B16C507F13487V5X10

10

SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE		ALPHA	SREF	REFERENCE INFORMATION	
		B. FLAP	RUDDER	DATASET	ALPHA	DATASET	SO. FT.			INCHES	
O	.201	-18.000	ELEVON	.000	E2N167	.000	5.000	LRFP	19.2539	INCHES	
		.000	ELEVON	.000	E2N168	.000	5.000	BRFP	37.9249	INCHES	
		.000	NACX/L	.450	E2N169	10.000	15.000	YFRP	43.5971	INCHES	
		.000	NACX/L	.450	E2N171	18.000		YFRP	.0000	INCHES	
		4.000						ZFRP	16.2000	INCHES	
								SCALE	.0405	SCALE	

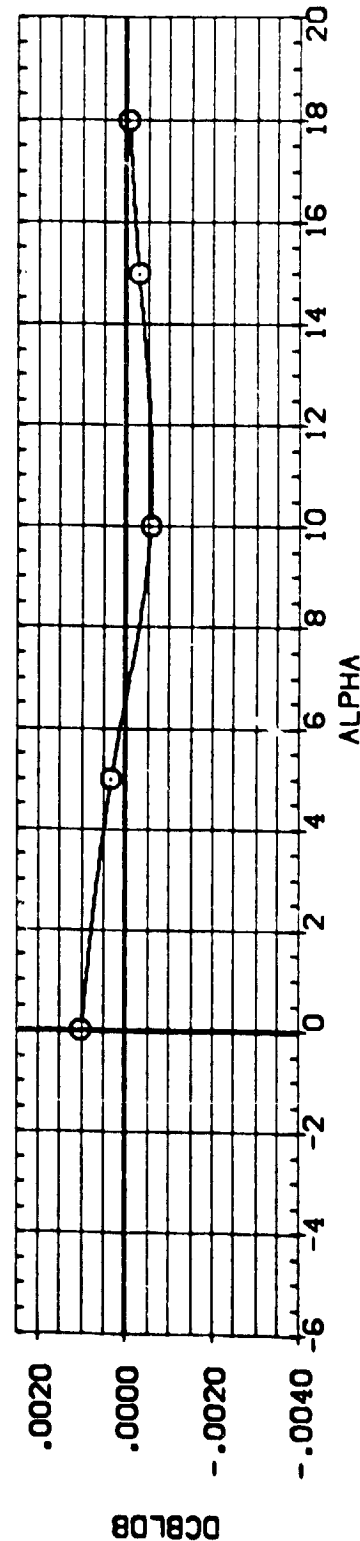
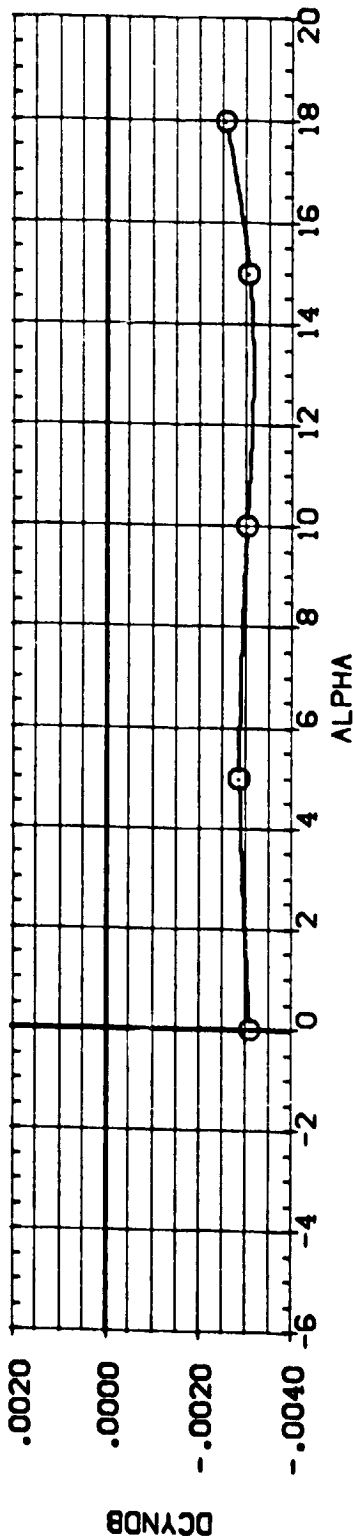
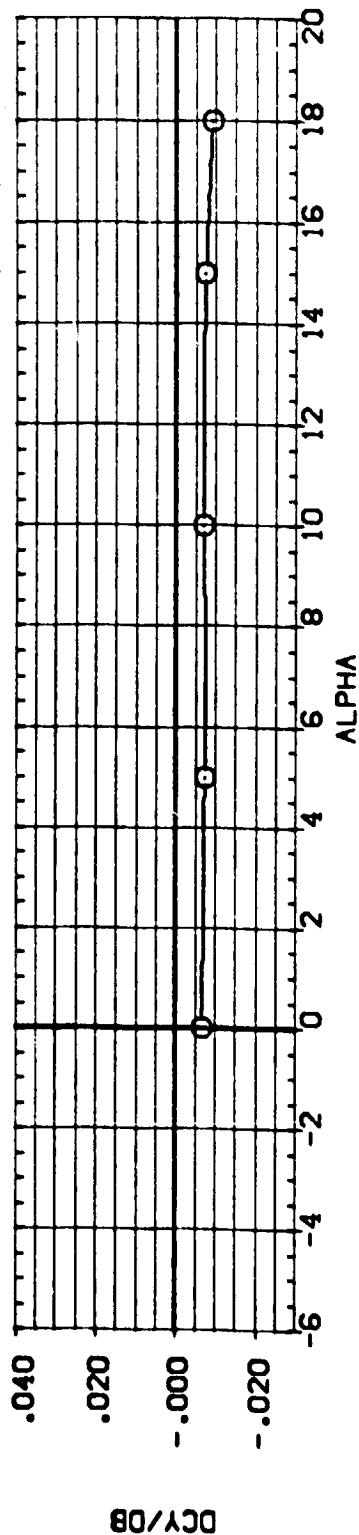


PLAT-DIRECT. DERIVATIVES, 2 FUS. AND 2 WING ABES (4 NACELLES)

NR.701.0405 ORB B16C507F1W87X9

(BDN154)

SYMBOL	MACH	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	.201	B.FLAP AILRON	ALPHA BDN154 BDN156 BDN158	SREF LREF SREF XREF YREF ZREF SCALE
		-18.000 .000	.000 10.000 18.000	4.4119 19.2958 37.9349 43.5974 .0000 16.2000 .0405
				50.FT. INCHES INCHES INCHES INCHES INCHES SCALE



LAT-DIRECT. DERIVATIVES, ABES OFF, VERT. TAIL OFF

(BOW113)

HOW

PARAMETER  
-19.000  
.000  
4.000

WOM  
NIGHT  
SERIES

11

DATASET  
BONI13  
BONI15  
BONI17

DATA SOURCE: ALPHA  
0000.01  
0000.01  
0000.01



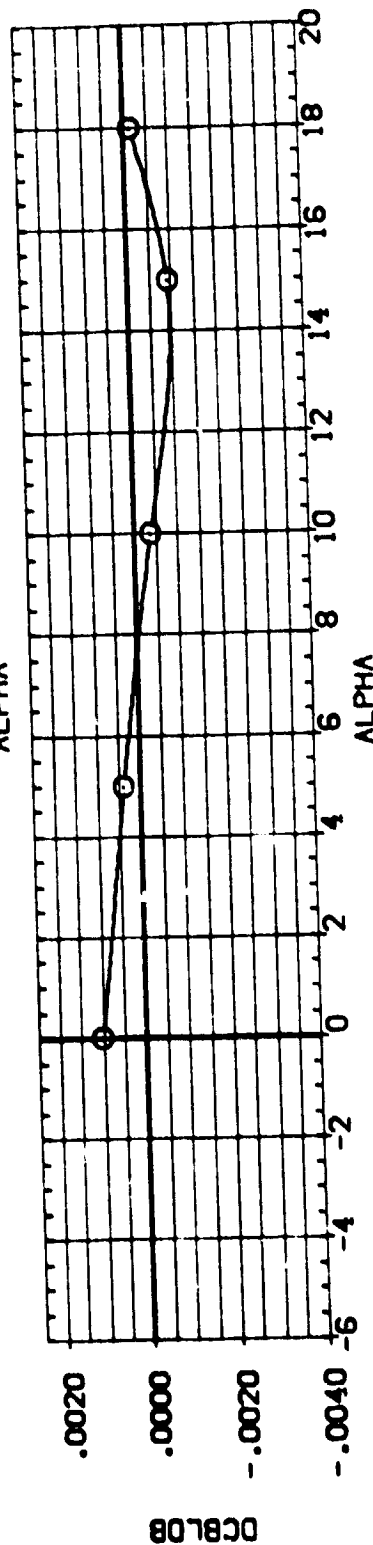
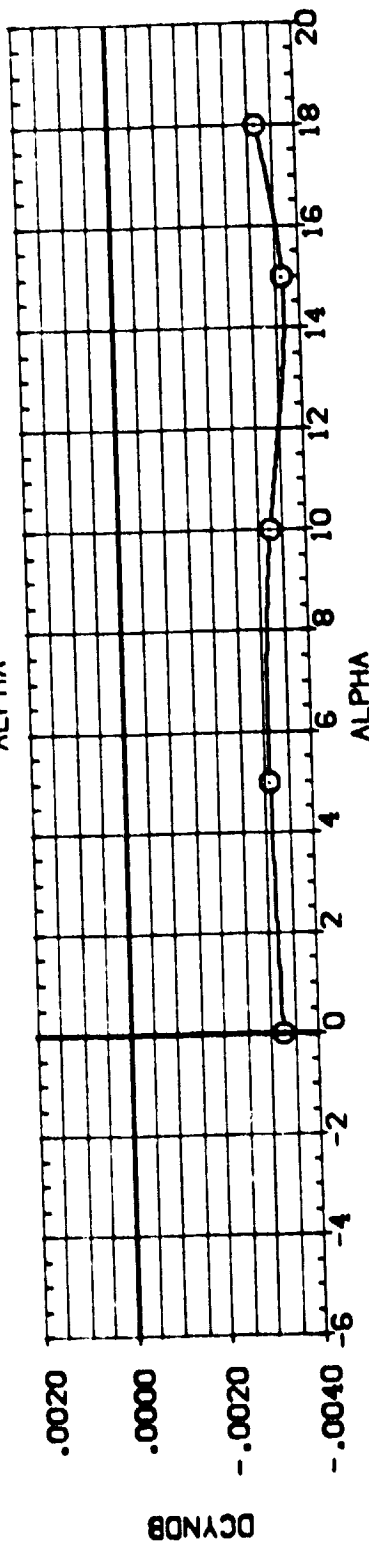
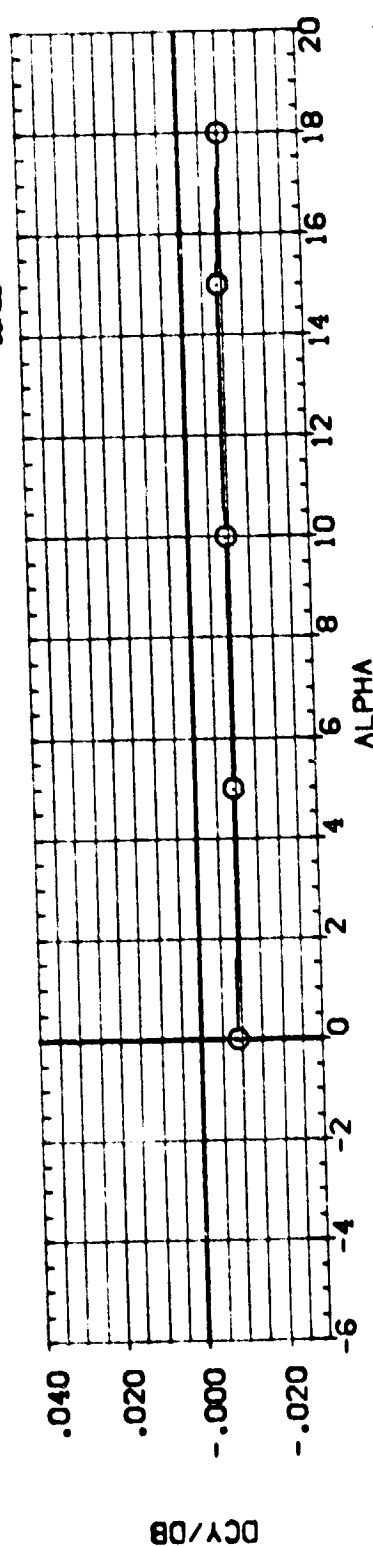
DATASET  
BON114  
BON116

PWA  
5.000  
15.000

0844  
0840  
0838  
0837  
0835

4.4113  
19.2999  
37.9349  
43.5974  
.0000  
1.3000

50.F1105  
INDE  
INDE  
INDE  
INDE  
INDE  
INDE

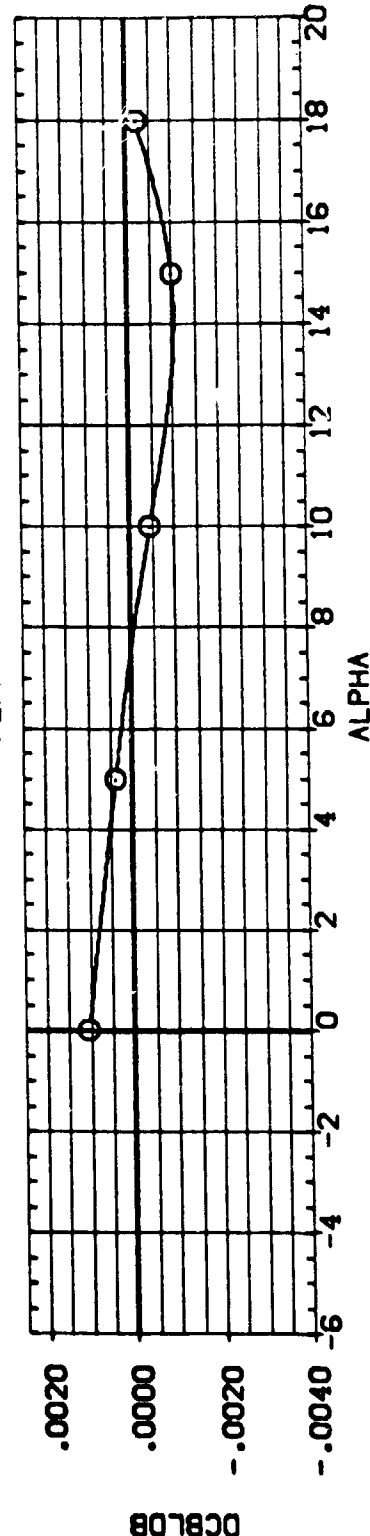
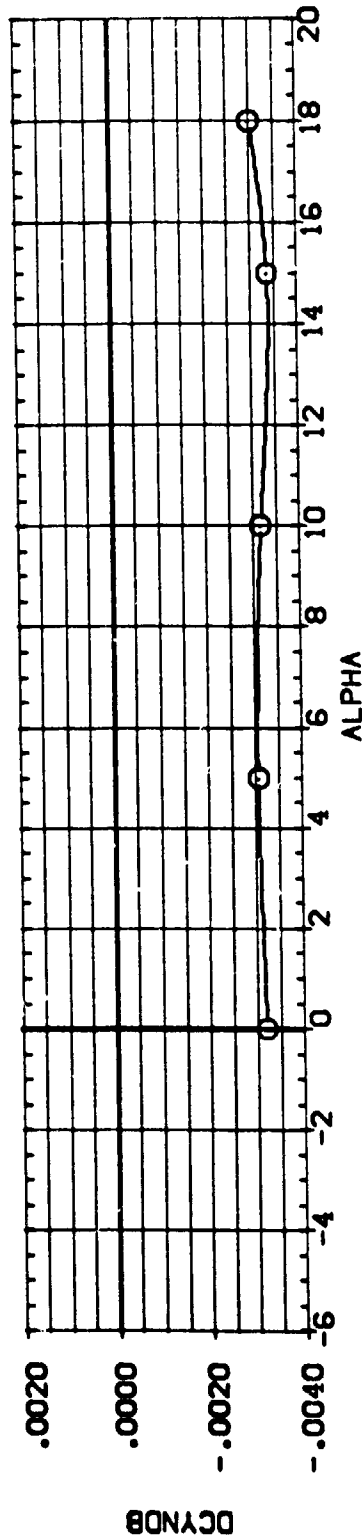
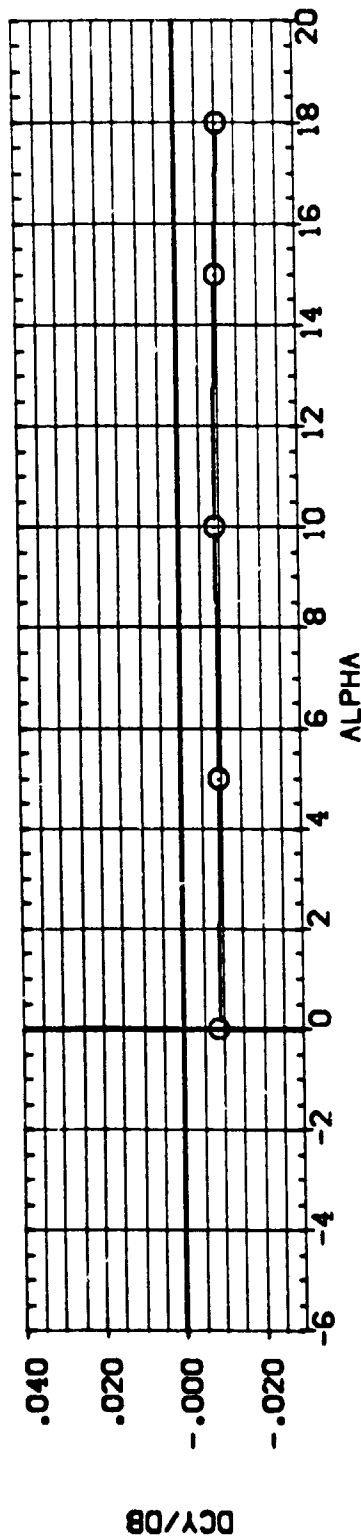


LAT-DIRECT. DERIVATIVES. BASELINE ABES LOCATION (4 NACELLES) VERT. TAIL OFF

(80N070)

NR.701.0405 ORB B16C507F1J3W87X10

SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		B.FLAP	AILERON	LIP	ELEVON	ALPHA	DATASET	ALPHA	SREF	SQ.FT.	INCHES
O	.201	-18.000	.000	4.000	NAC/L	.000	DATASET	5.000	REF	4.4119	INCHES
						.100	80N070	15.000	LREF	19.2589	INCHES
						10.000	80N072	15.000	BREF	37.5349	INCHES
						18.000	80N074	15.000	YREF	43.5974	INCHES
									ZREF	16.2000	INCHES
									SCALE	.0405	SCALE

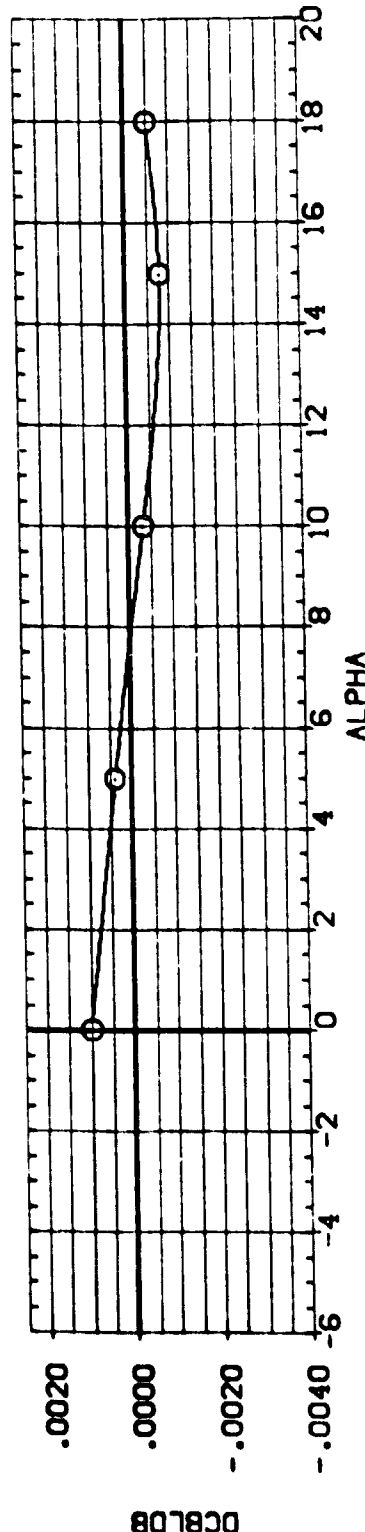
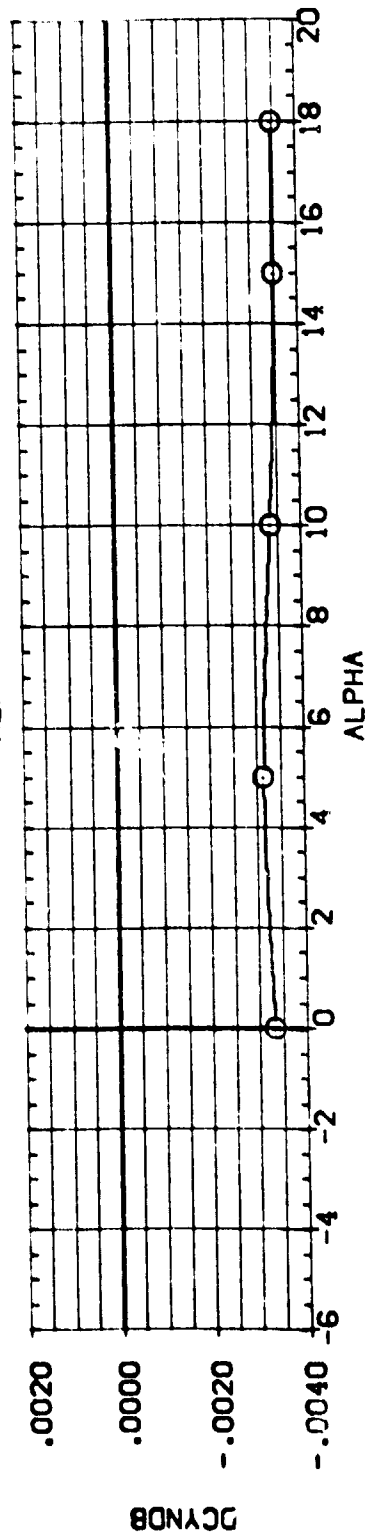
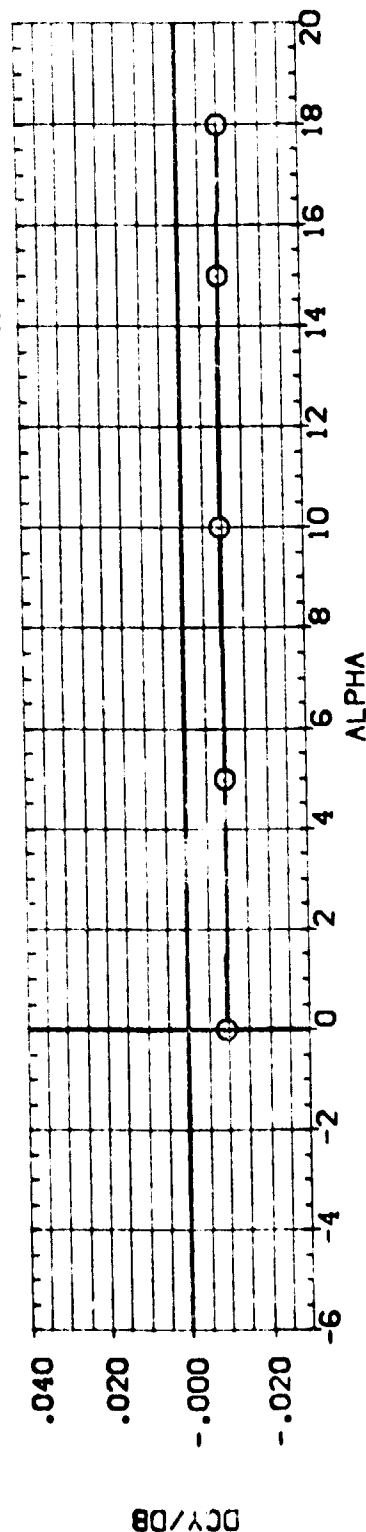


LAT-DIRECT. DERIVATIVES. ABES MOVED FORWARD .10(NAC LGTH) 4 NACS. VERT TAIL OFF

(8DN108)

NR.701.0405 0RB B16C507F103W87X10

SYMBOL	MACH	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION		
		B-FLAP	ELEVON	MACH	ALPHA	DATASET	REF	SOFT	INCHES
O	.201	AILURON LIP	-18.000	.000	.000	8DN108	19.2559	10.000	10.000
							37.5349	5.000	5.000
							43.5374	15.000	15.000
							16.2000	10.000	10.000
							SCALE	SCALE	SCALE
								.0405	

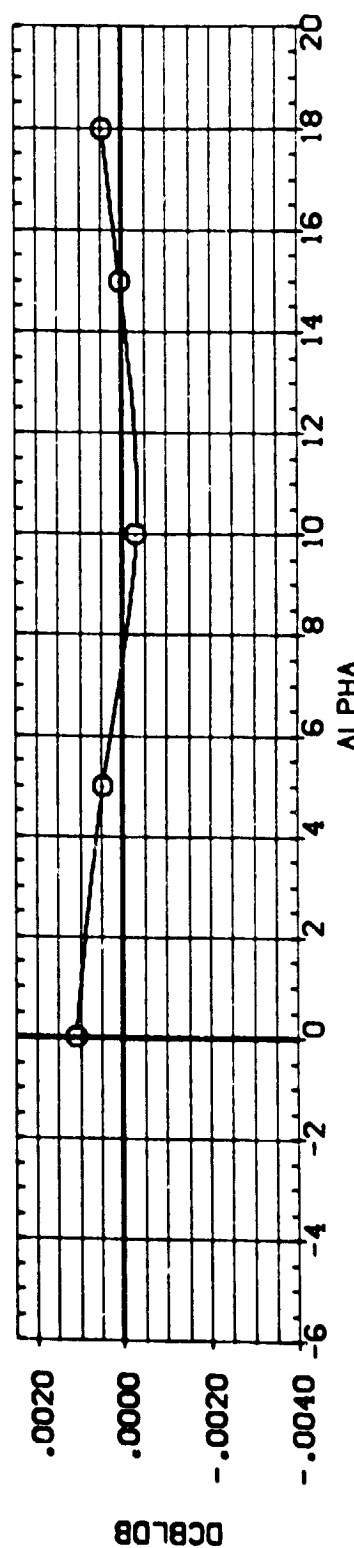
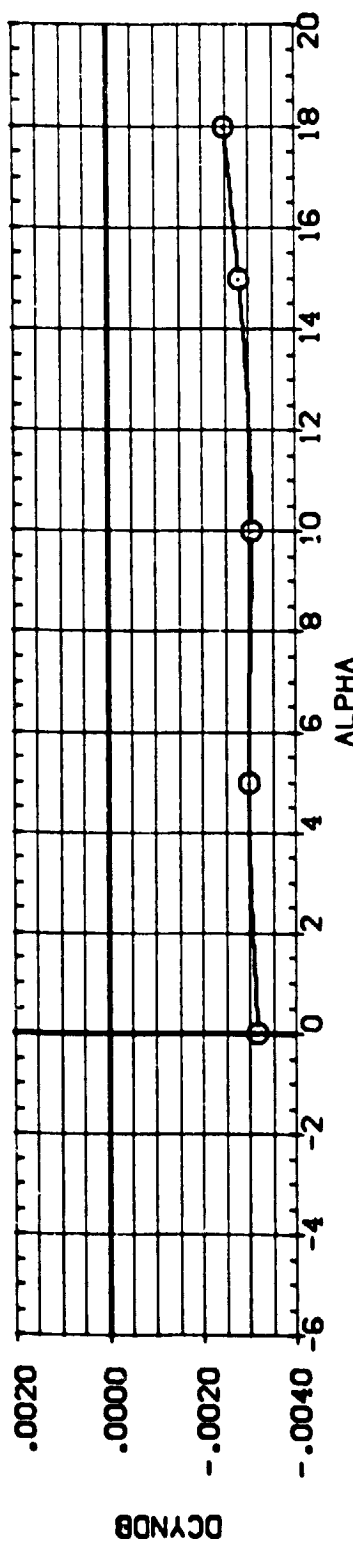
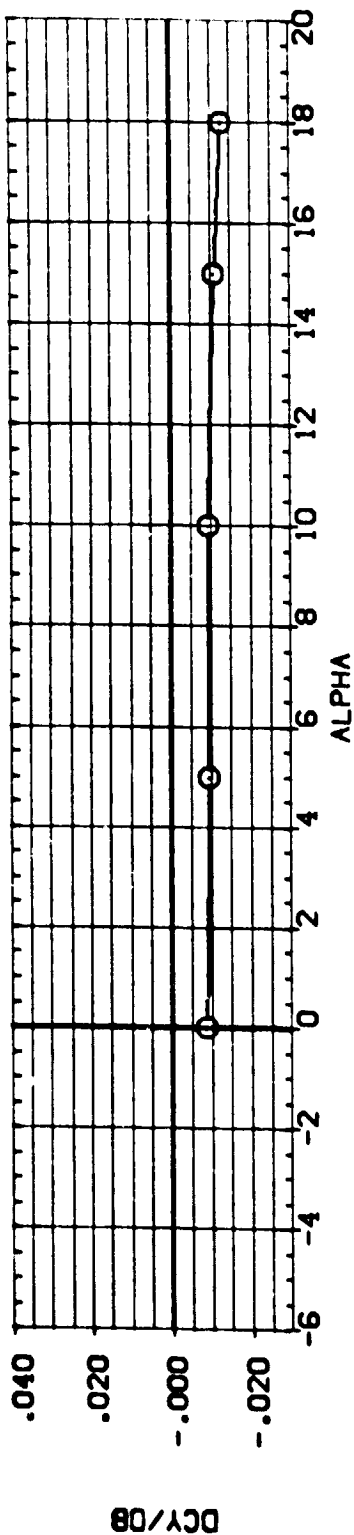


LAT-DIRECT. DERIVATIVES. INBD ABES FORWARD. OUTBD AFT. 25(NAC LGTH) V. TAIL OFF

NR.701.0405 ORB 816C507F1J4W87X10

(80N201)

SYMBOL	MACH	B. FLAP	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
O	.201	AILERON LIP	-18.000 .000 4.000	ALPHA .000 10.000 18.000	50.FT. INCHES INCHES INCHES INCHES INCHES SCALE
				ALPHA 5.000 15.000	4.4119 19.2999 37.9349 43.5074 10.000 16.2000 .0405



LAT-DIRECT. DERIVATIVES, 2 FUS. AND 2 WING ABES (4 NACELLES) VERT. TAIL OFF

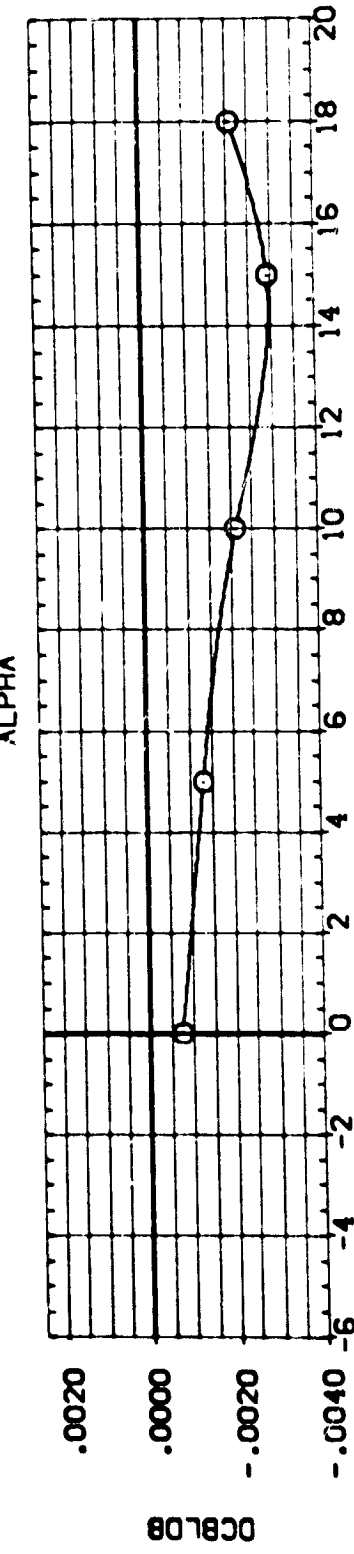
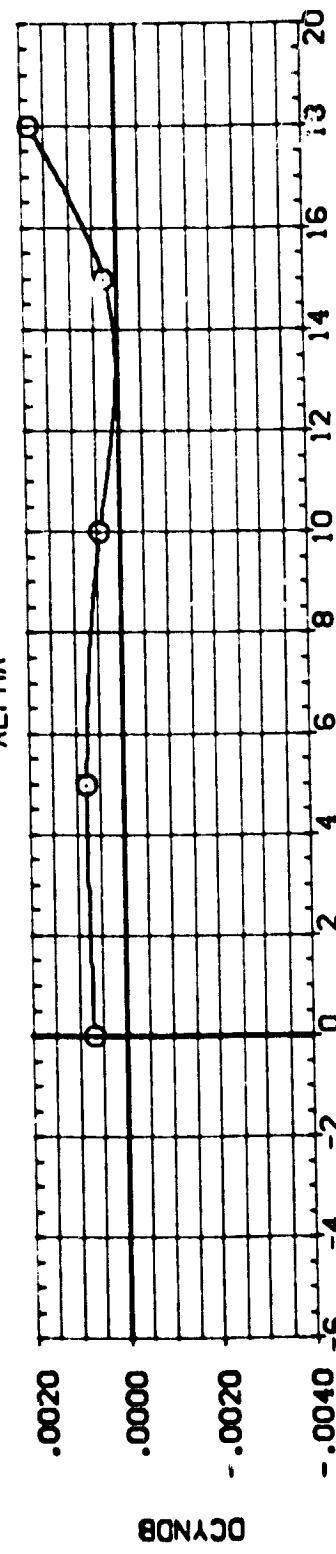
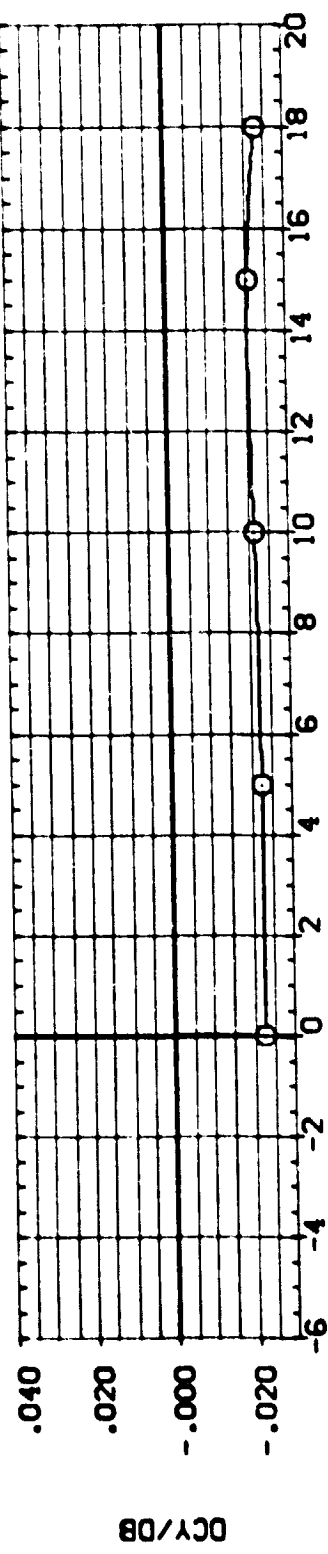




(BDN344)

NR.701.0405 ORB B16C507F1J5G12#87V5X10

SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		B-FLAP	B-FLARE	AILERON	LIP	.000	DATASET	ALPHA	DATASET	ALPHA	SREF	50-FT.	INCHES
O	.201	-18.000	RUDDER	.000	EDG44	.000	EDG45	5.000	REF	19.2328	INCHES	INCHES	
		.000	ELEVON	.000	EDG46	10.000	EDG47	15.000	BREF	37.9349	INCHES	INCHES	
		.000	NACDL	.000	EDG48	18.000			YTRP	43.5974	INCHES	INCHES	
		4.000							ZTRP	16.2000	INCHES	INCHES	
									SCALE	.0405	SCALE	SCALE	

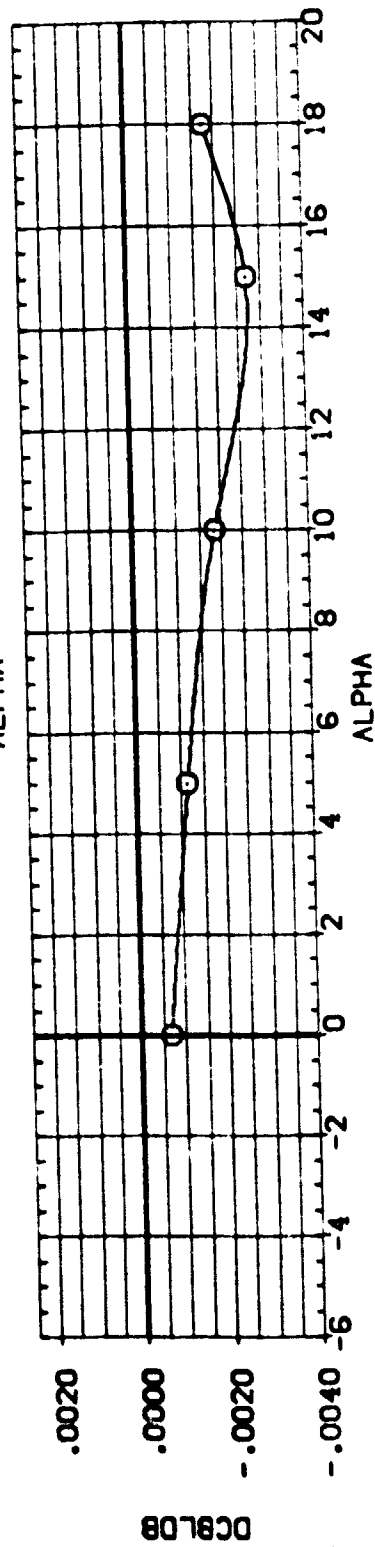
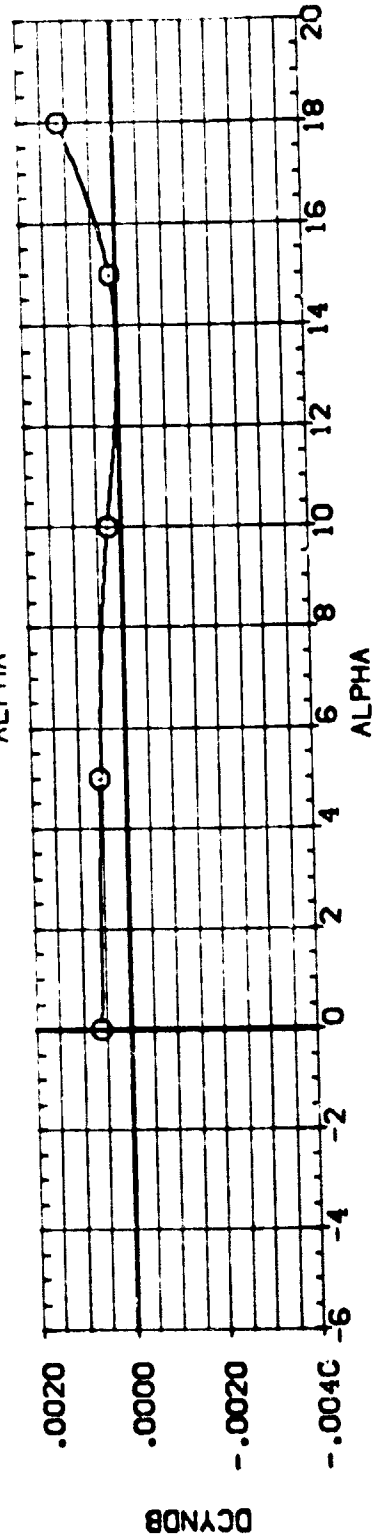
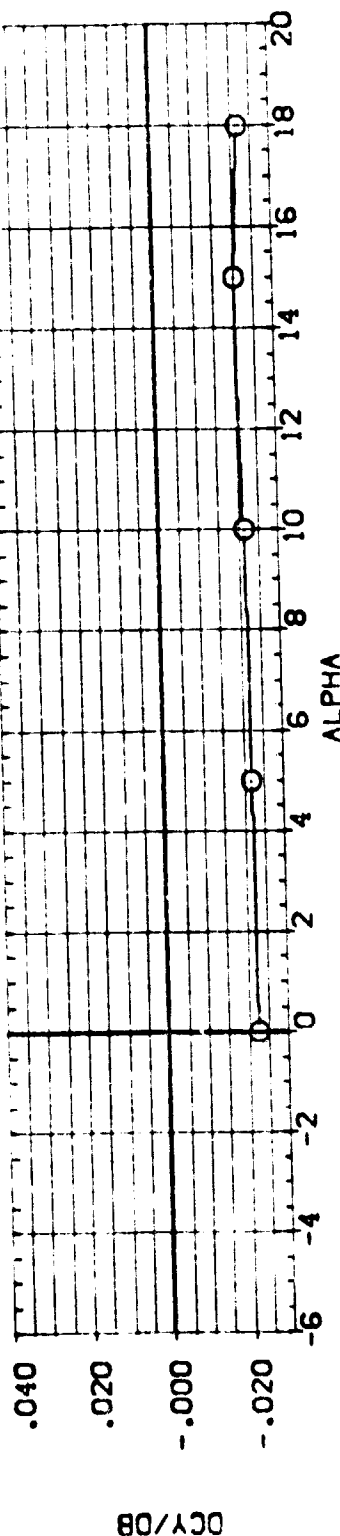


LAT-DIRECT. DERIVATIVES, BASELINE ABES LOCATION (6 NACELLES)

(BDN358)

NR.701.0405 ORB B16C507F1J6G12W87V5X10

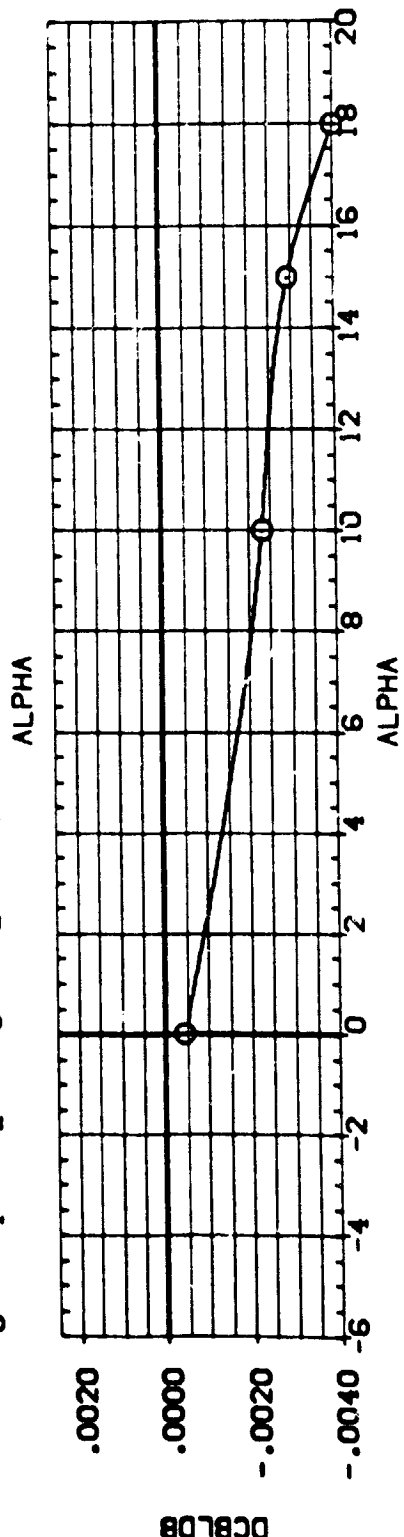
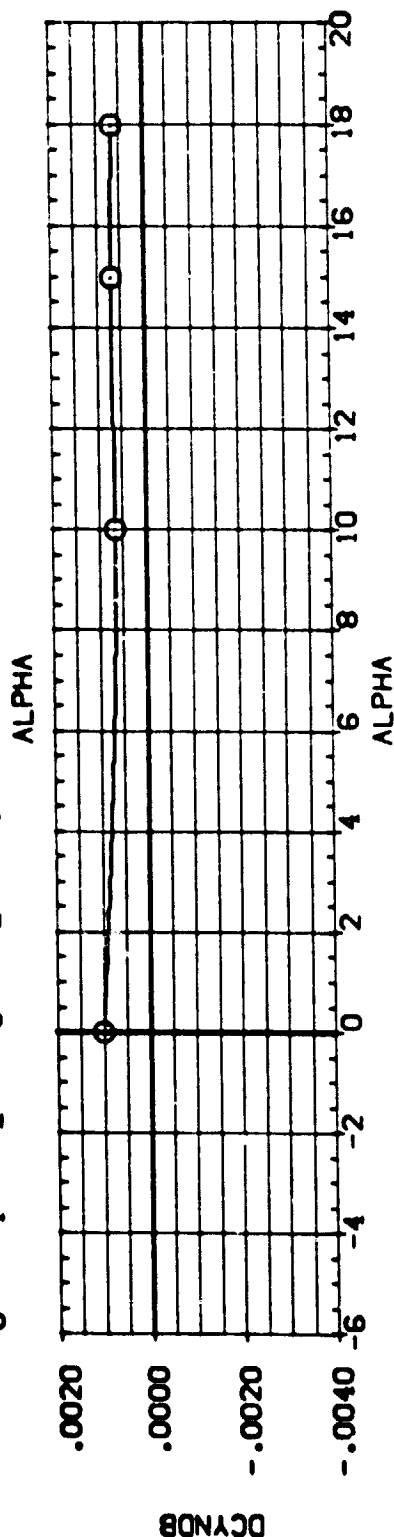
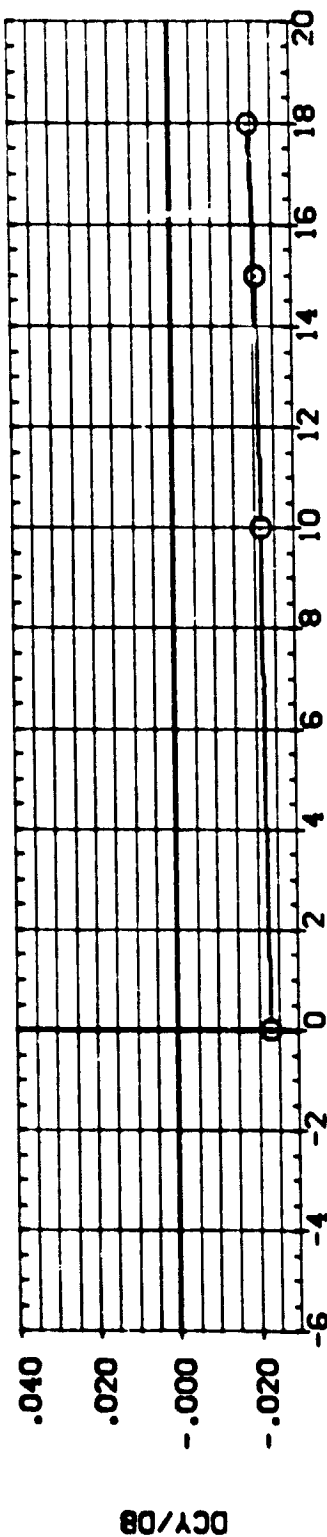
SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		B-FLAP	REFLARE	AILURON	LIP	.000	DATASET	ALPHA	SCALE	SREF	REF	INCHES	SCALE
O	.201	-18.000	.000	.000	4.000	.000	BDN358	.000	.000	4.4119	19.2968	INCHES	.0405
						.000	BDN358	10.000	.000	37.5049	43.5074	INCHES	.0000
						.000	BDN358	18.000	.000	16.2000	16.2000	INCHES	.0000
						.000	BDN358	18.000	.000	16.2000	16.2000	INCHES	.0000
						.000	BDN358	18.000	.000	16.2000	16.2000	INCHES	.0000



LAT-DIRECT. DERIVATIVES. 2 FUS. AND 4 WING ABES (6 NACELLES)

NR-701-0405 CRB B16C507F1J7G12W87V5X10

SYMBOL	NAME	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
0	B.FLAP	-18.000	ALPHA	SO.FT. 14.4119
	REFLARE	.000	BDXG33	IN-ES 19.2599
	AILRON	.000	BDXG34	IN-ES 37.9349
	LIP	4.000	BDXG35	IN-ES 43.5874
			TRAP	IN-ES 16.2000
			ZTRAP	SCALE .0405

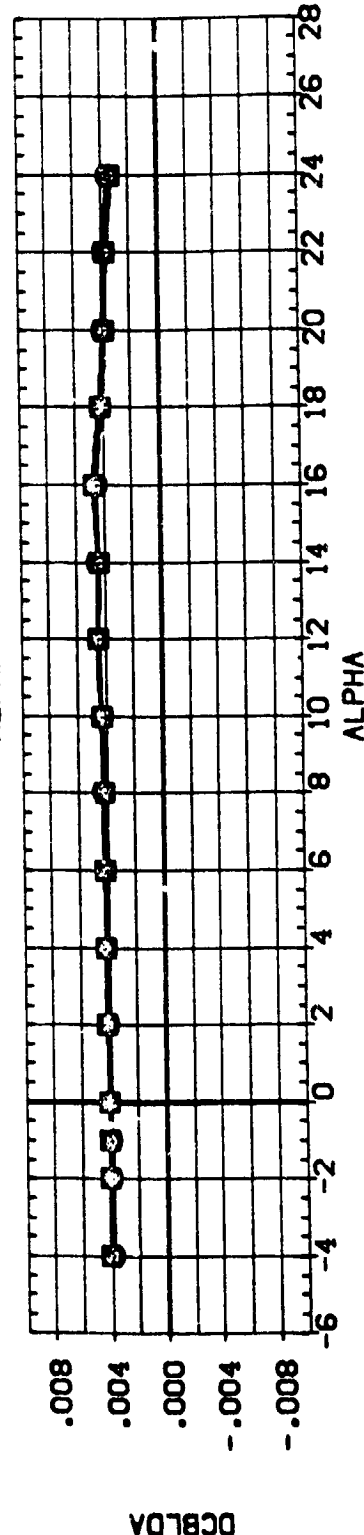
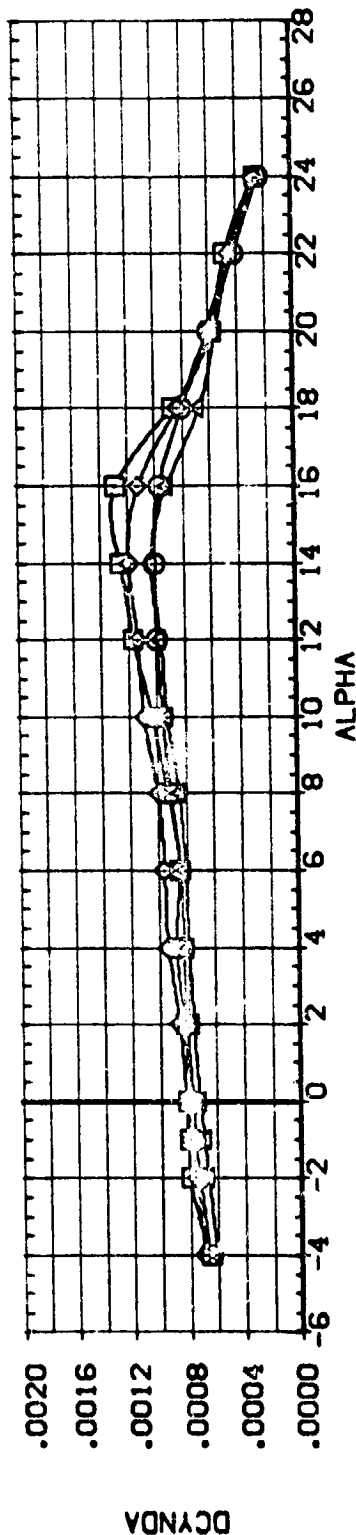
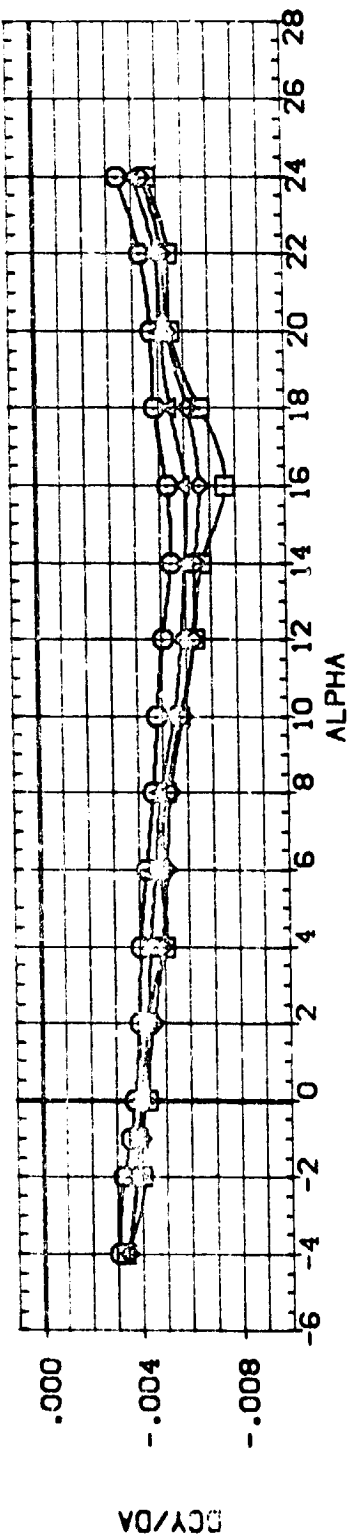


PLAT-DIRECT. DERIVATIVES, 2 CLUSTERS OF 3 ABES

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CON) 28) NR.701.0405 009 8180507E 187E18V5X3  
 (CON) 25) NR.701.0405 009 8180507E 187E18V5X3  
 (CON) 29) NR.701.0405 009 8180507E 187E18V5X3  
 (CON) 30) NR.701.0405 009 8180507E 187E18V5X3

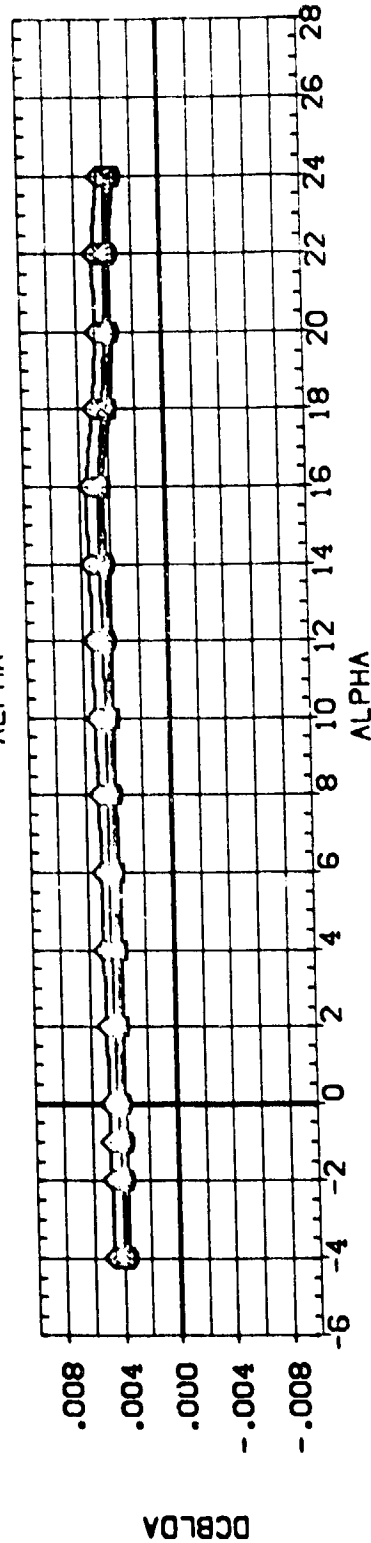
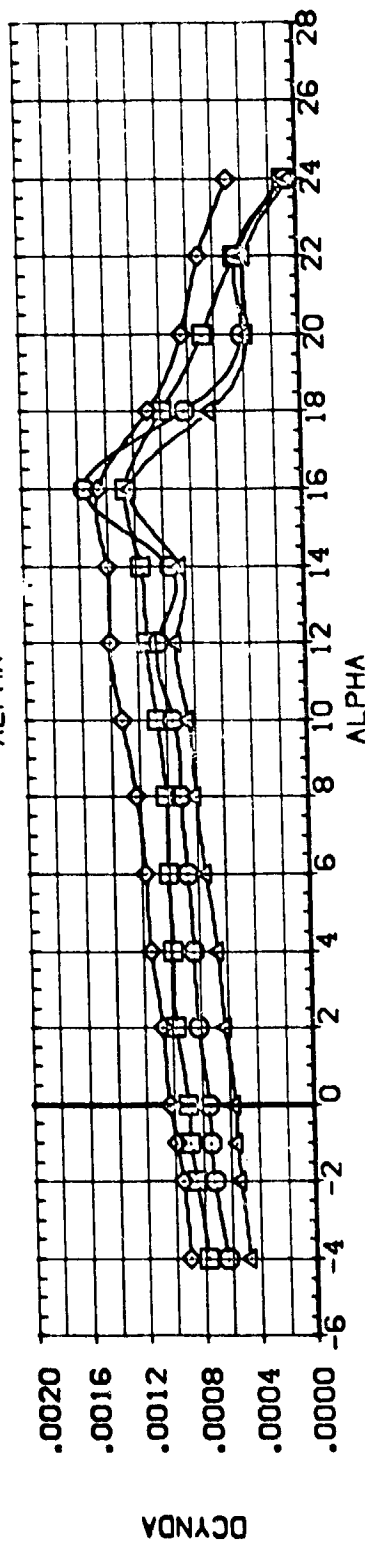
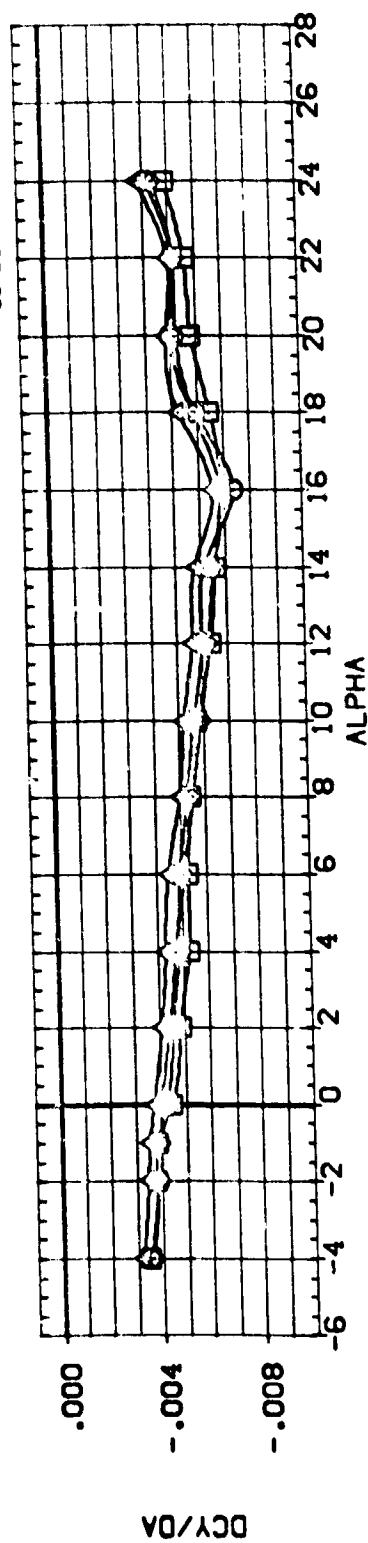
DLTALN ELEVON RFLAP  
 -10.000 .000 -18.000  
 15.000 .000 -18.000  
 10.000 .000 -18.000  
 15.000 .000 -18.000

REFERENCE INFORMATION  
 SREF 4.1119 50.FT.  
 LREF 19.2399 INCHES  
 EREF 37.5319 INCHES  
 XREF 13.5574 INCHES  
 YREF .0000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405



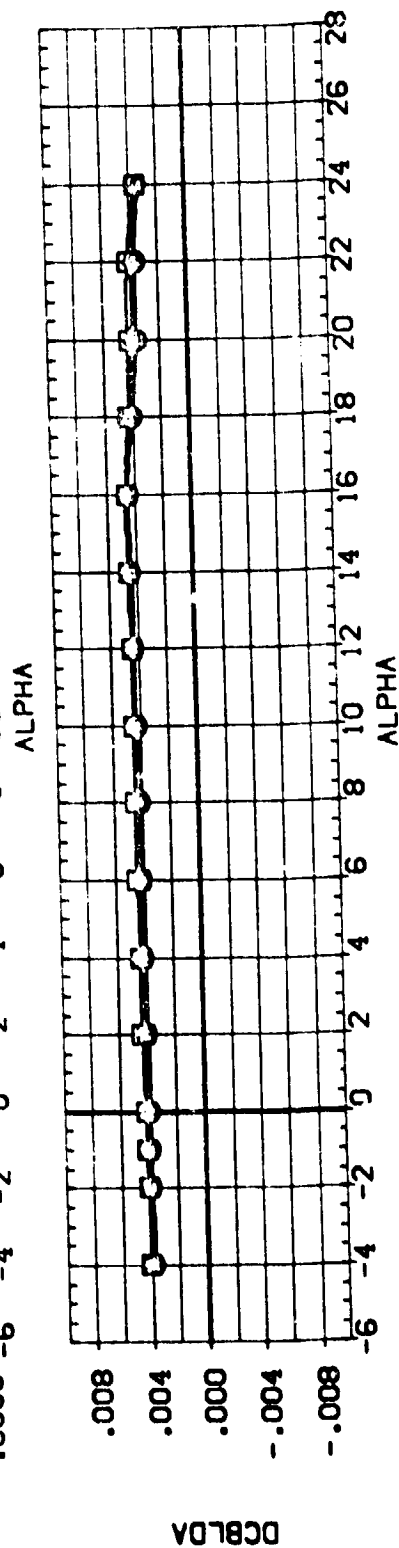
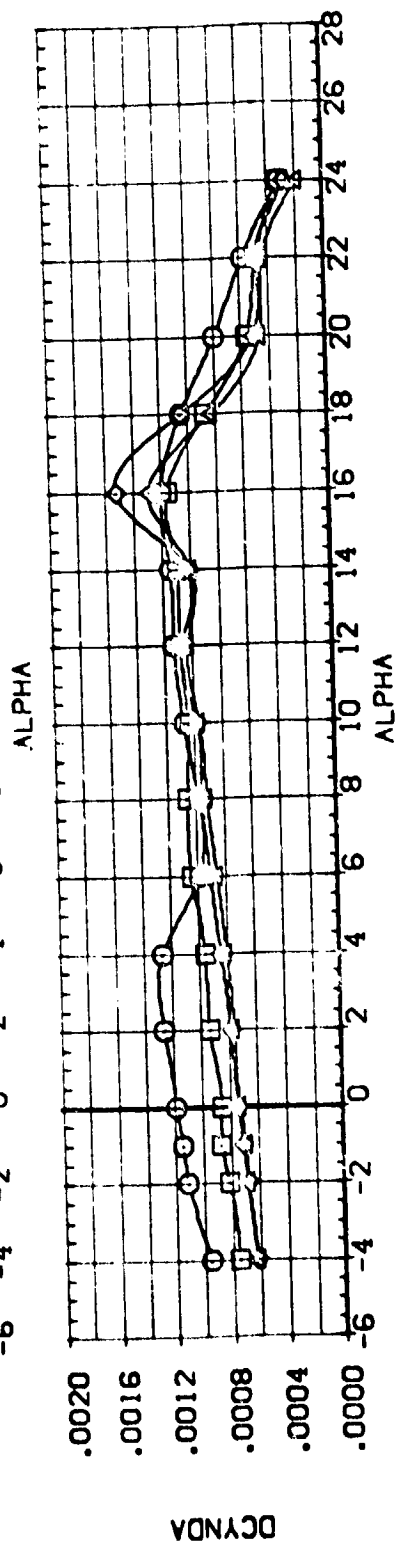
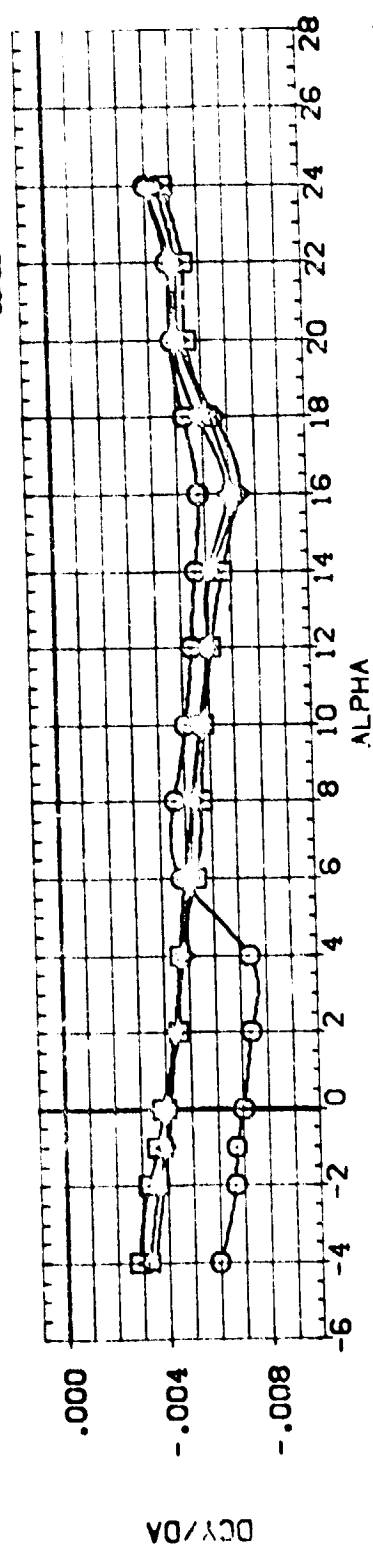
AILERON DERIVATIVES, ABES OFF  
 (A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DLTALN	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
(YD-023)	NR.701.0405 ORB B16CS07F1J3V87E18VX10	10.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
(YD-024)	NR.701.0405 ORB B16CS07F1J3V87E18VX10	5.000	.000	.000	4.000	LREF 19.2538 INCHES
(YD-022)	NR.701.0405 ORB B16CS07F1J3V87E18VX10	-10.000	.000	.000	4.000	BREF 37.9349 INCHES
(YD-019)	NR.701.0405 ORB B16CS07F1J3V87E18VX10	-15.000	.000	.000	4.000	XREF 43.5374 INCHES
						YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



AILERON DERIVATIVES, BASELINE ABES LOCATION (4 NACELLES)

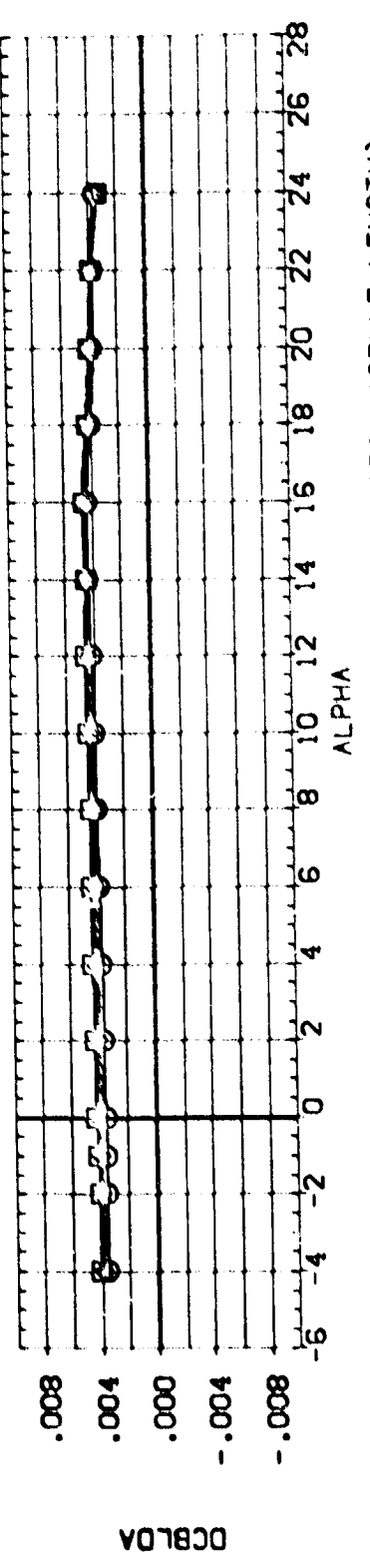
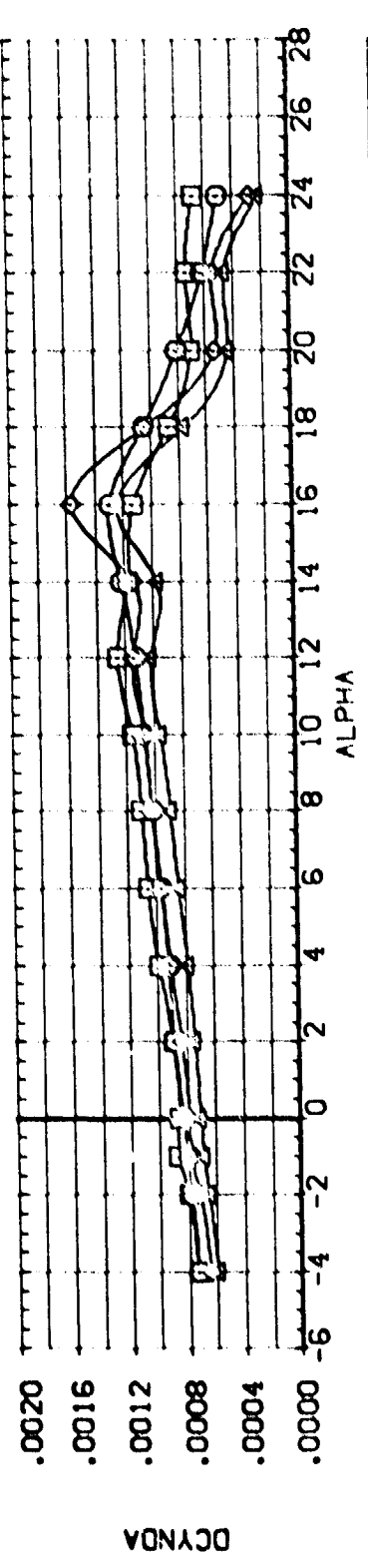
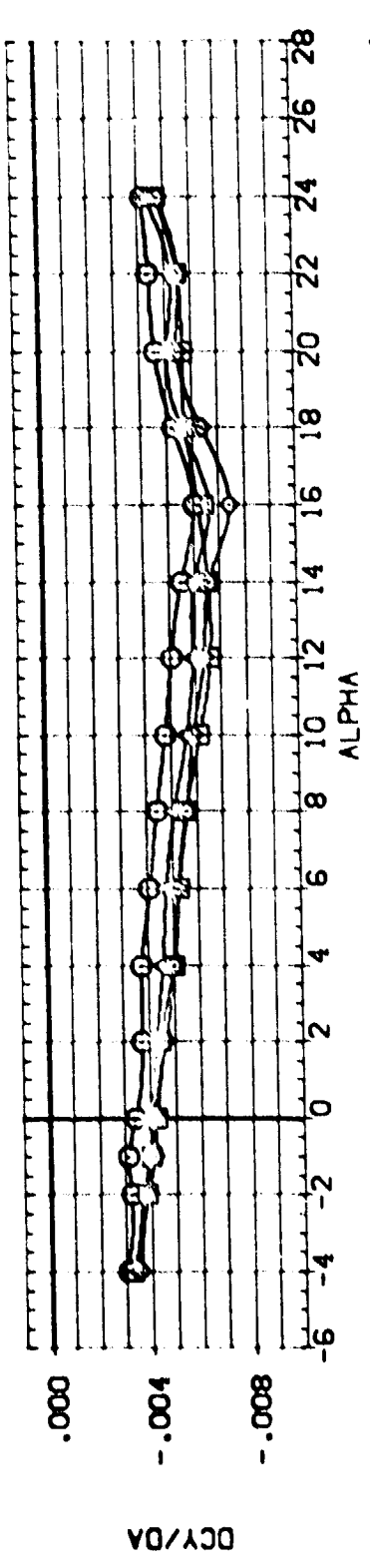
(AJMACH = .20

[illegible]

AILERON DERIVATIVES, ABES MOVED AFT .10( NACELLE LENGTH)

$$[A]_{MACH} = .20$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[00-082]	18.701 0405 098 8 655076	[00-082]	18.701 0405 098 8 655076	[00-082]	18.701 0405 098 8 655076	[00-082]	18.701 0405 098 8 655076
[00-079]	18.701 0405 098 8 655076	[00-079]	18.701 0405 098 8 655076	[00-079]	18.701 0405 098 8 655076	[00-079]	18.701 0405 098 8 655076
[00-086]	18.701 0405 098 8 655076	[00-086]	18.701 0405 098 8 655076	[00-086]	18.701 0405 098 8 655076	[00-086]	18.701 0405 098 8 655076
[00-083]	18.701 0405 098 8 655076	[00-083]	18.701 0405 098 8 655076	[00-083]	18.701 0405 098 8 655076	[00-083]	18.701 0405 098 8 655076



AILERON DERIVATIVES, IN80 ABES MOVED FWD, OUT80 AFT .250 NACELLE LENGTH)

CAMACH = .20

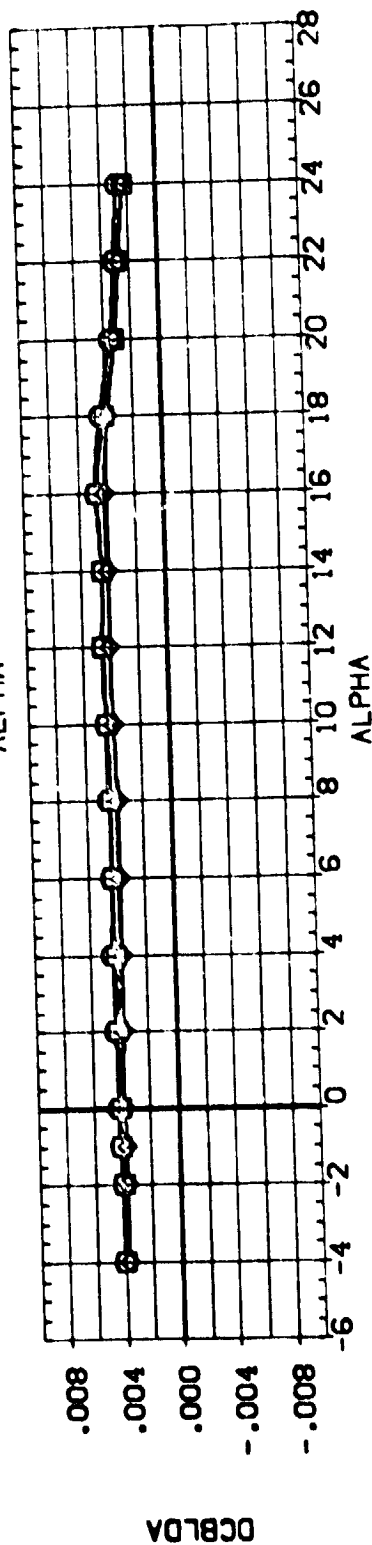
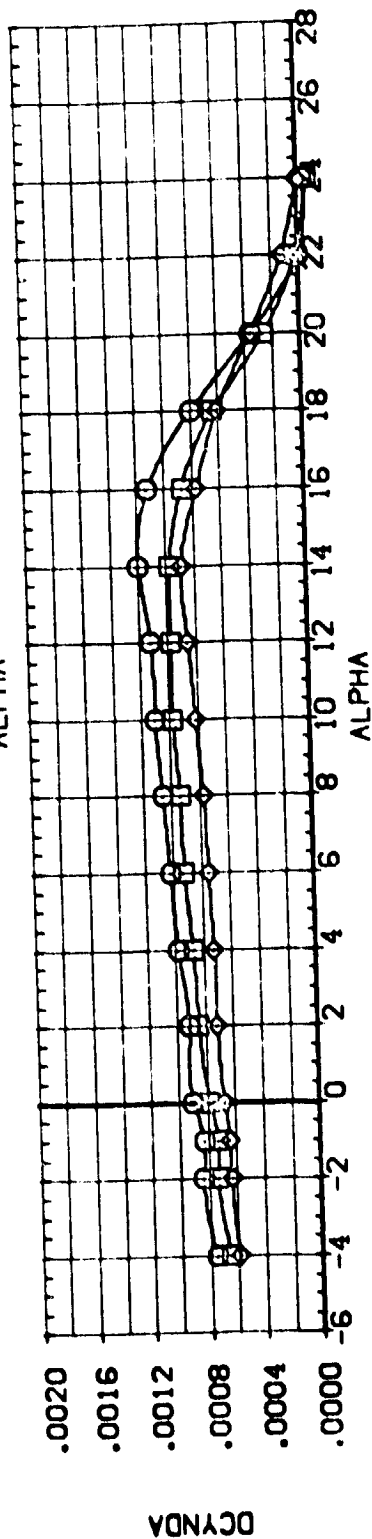
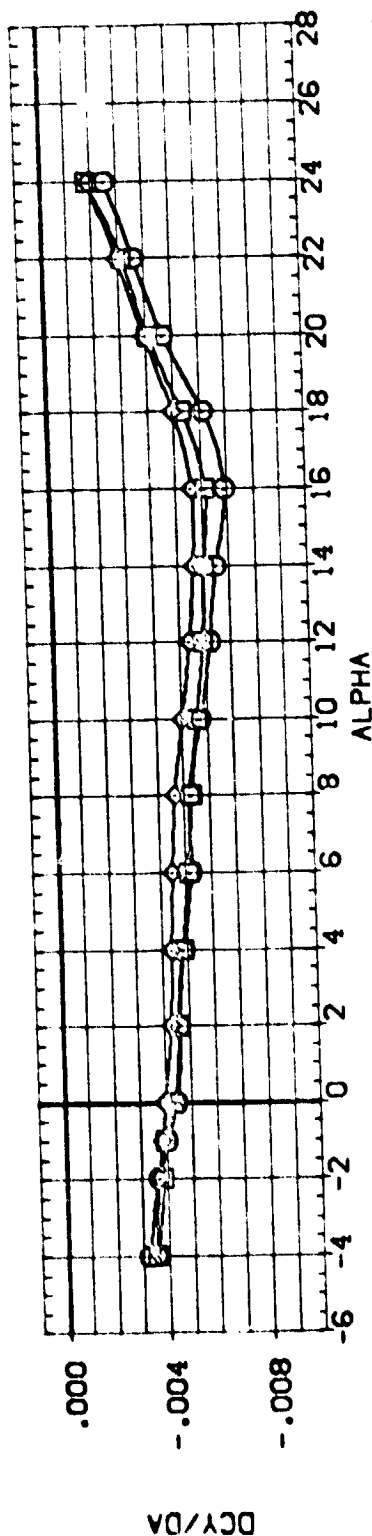
PAGE 133

DATA SET SYMBOL  
(DON173)  
(DON176)  
(DON177)

CONFIGURATION DESCRIPTION  
NR.701.0405 088 B16CS07F 14V87E 18V5X10  
NR.701.0405 088 B16CS07F 14V87E 18V5X10  
NR.701.0405 088 B16CS07F 14V87E 18V5X10

DELTA H ELEVON MACVA LIP

REFERENCE INFORMATION  
SREF 4.4119 SQ.FT.  
UREF 19.2598 INCHES  
XREF 37.9249 INCHES  
YREF 43.5571 INCHES  
ZREF 16.2000 INCHES  
SCALE .0405

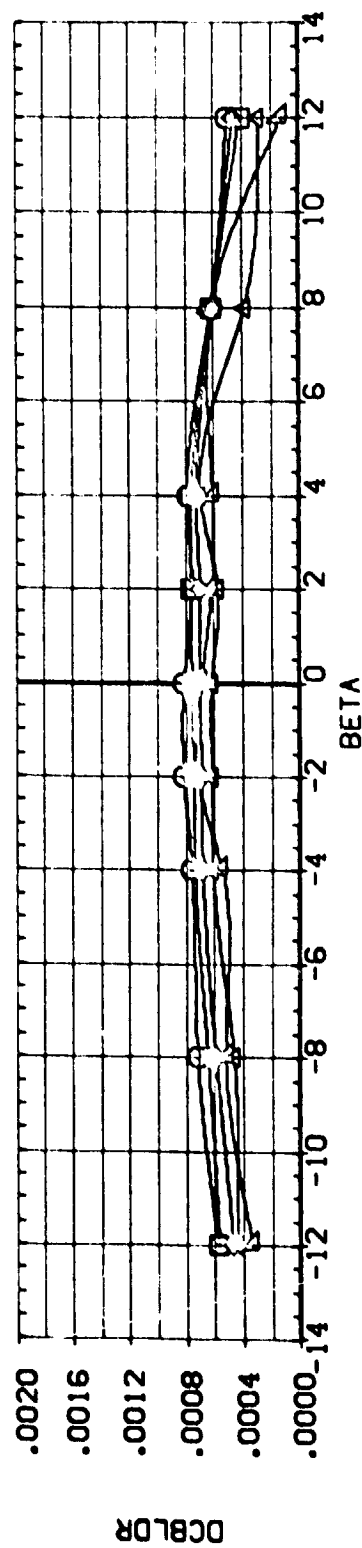
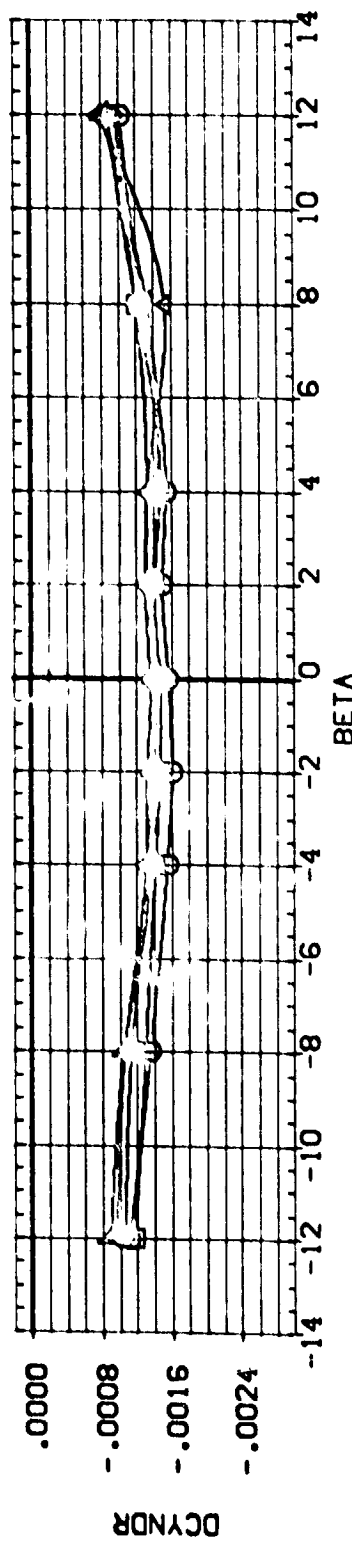
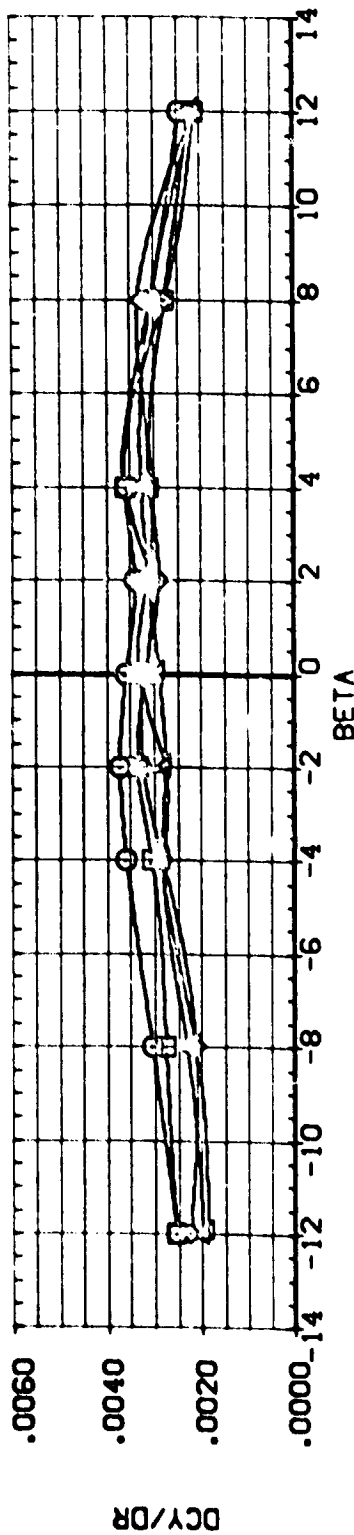


AILERON DERIVATIVES, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20



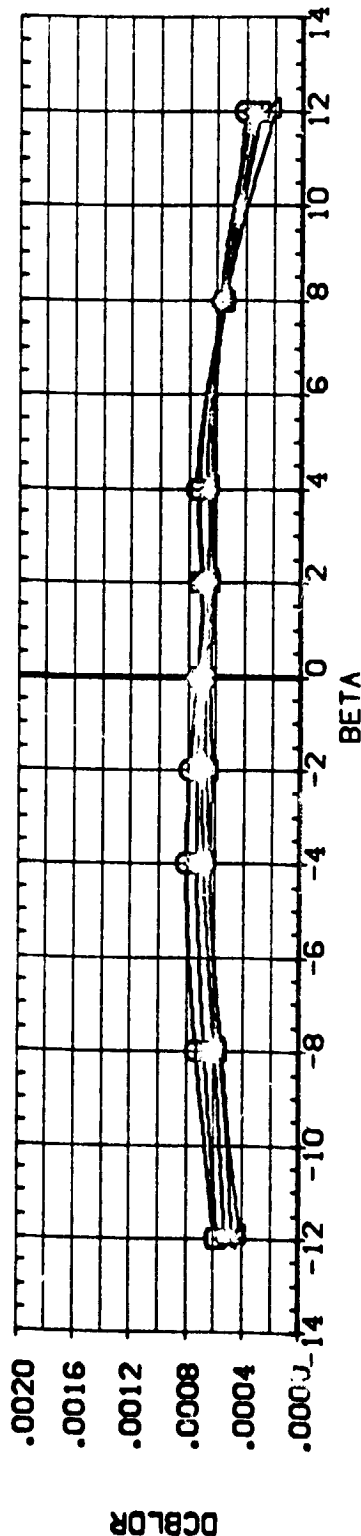
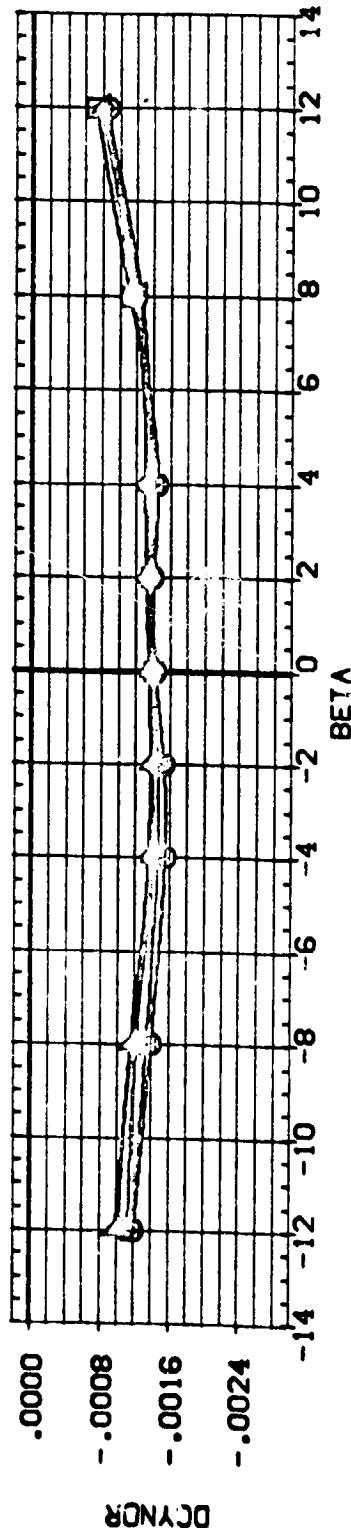
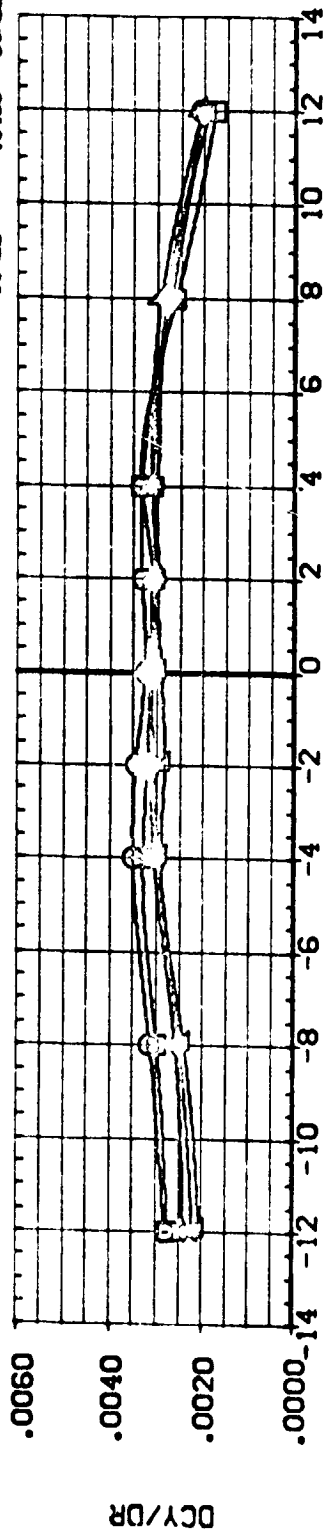
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ULTROR	ALPHA	ELEVON	B-FLAP	REFERENCE INFORMATION
(DDN142)	NR.701.0405 098 B18C507F1V87V5R5G	-7.500	.000	.000	-18.000	SREF 4.4119 50.17
(DDN143)	NR.701.0405 098 B18C507F1V87V5R5G	-7.500	5.000	.000	-18.000	LREF 19.2029 10-ES
(DDN144)	NR.701.0405 098 B18C507F1V87V5R5G	-7.500	10.000	.000	-18.000	BREF 37.9049 10-ES
(DDN145)	NR.701.0405 098 B18C507F1V87V5R5G	-7.500	15.000	.000	-18.000	XREF 43.2074 10-ES
(DDN146)	NR.701.0405 098 B18C507F1V87V5R5G	-7.500	18.000	.000	-18.000	TRAP 16.2000 10-ES
				SCALE		SCALE .0405



RUDDER DERIVATIVES, ABES OFF

(A)MACH = .20

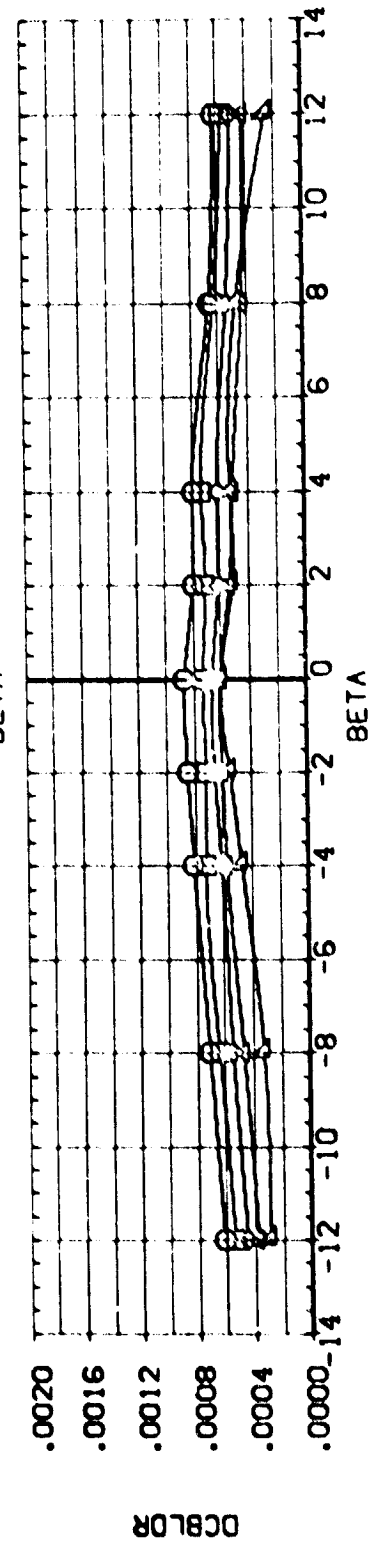
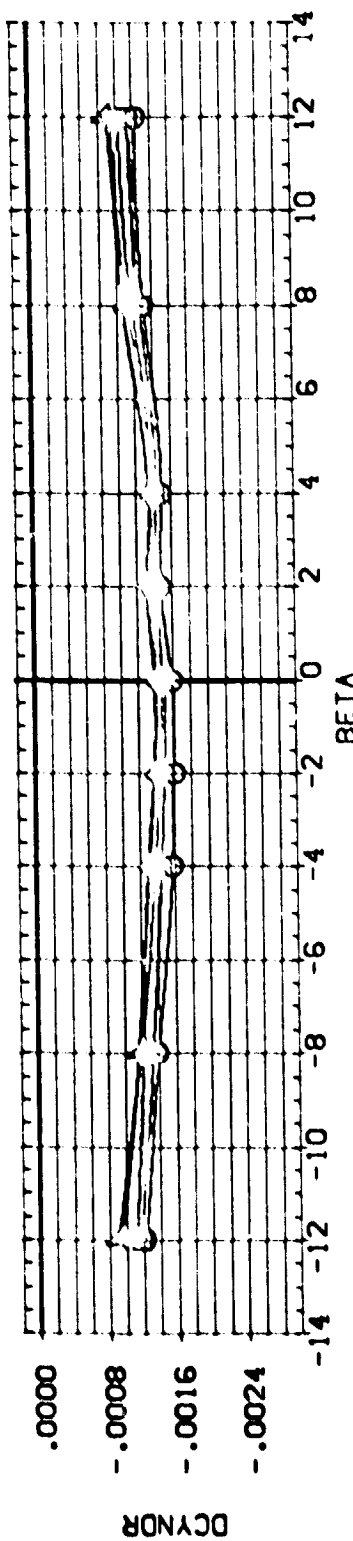
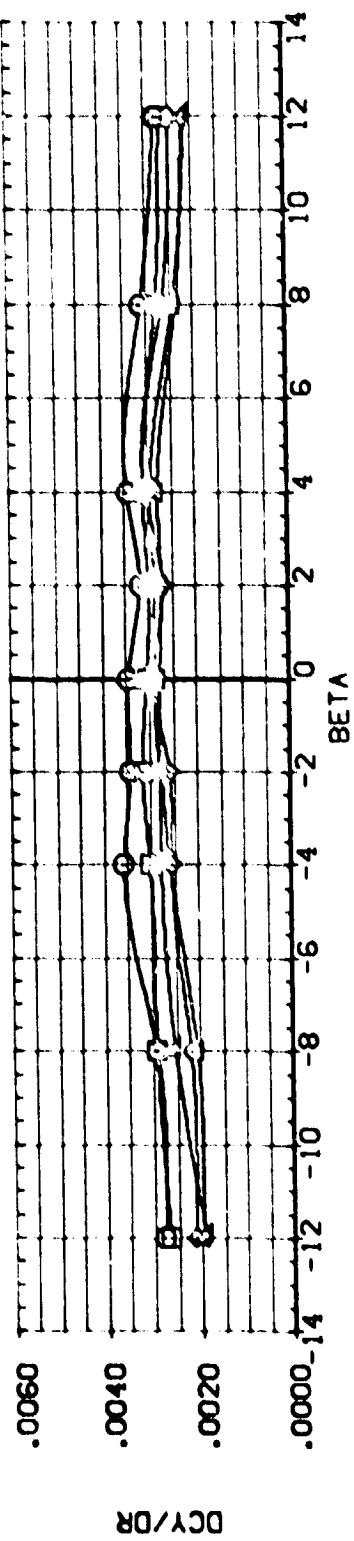
DATA SET SYMBOL	CONF'GURATION DESCRIPTION	DLTROR	ALPHA	ELEVON	B, FLAP	REFERENCE INFORMATION
(DDN149)	NR.701.0405 CR8 B16C507F 1V87V5R5X3	-15.000	.000	.000	-18.000	SREF 4.4119 SQ.FT.
(DDN150)	NR.701.0405 CR8 B16C507F 1V87V5R5X3	-15.000	5.000	.000	-18.000	LREF 19.2558 INCHES
(DDN151)	NR.701.0405 CR8 B16C507F 1V87V5R5X3	-15.000	10.000	.000	-18.000	BREF 27.9449 INCHES
(DDN152)	NR.701.0405 CR8 B16C507F 1V87V5R5X3	-15.000	15.000	.000	-18.000	XREF 43.5574 INCHES
(DDN153)	NR.701.0405 CR8 B16C507F 1V87V5R5X3	-15.000	18.000	.000	-18.000	YREF 16.2000 INCHES
						ZREF .0405 SCALE



RUDDER DERIVATIVES, ABES OFF

(A)MACH = .20

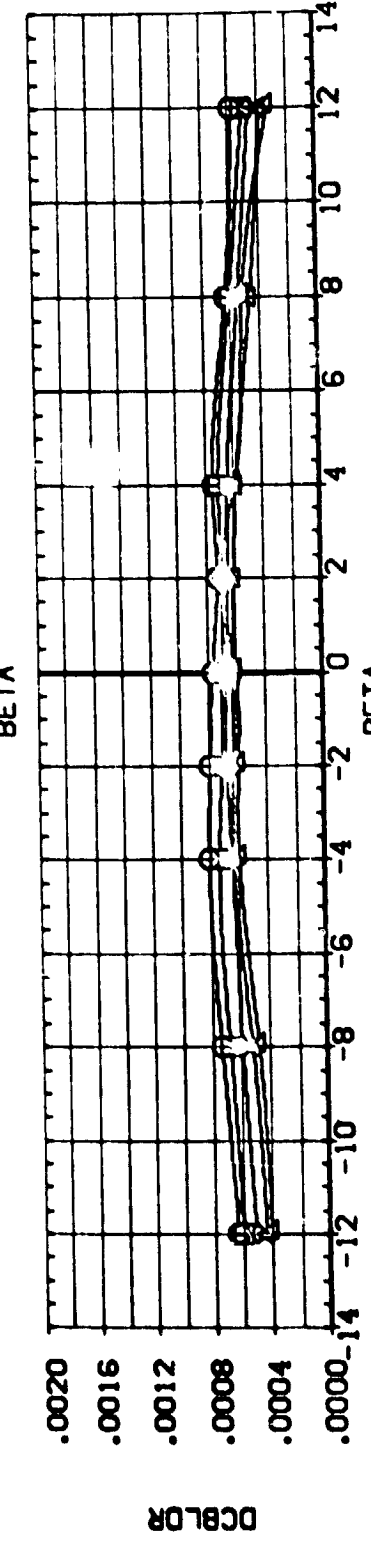
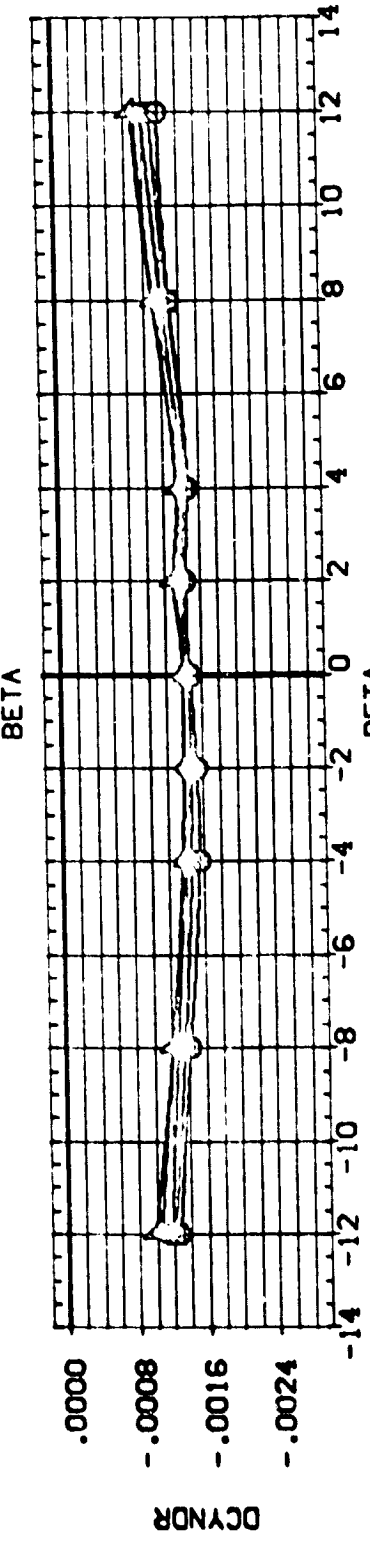
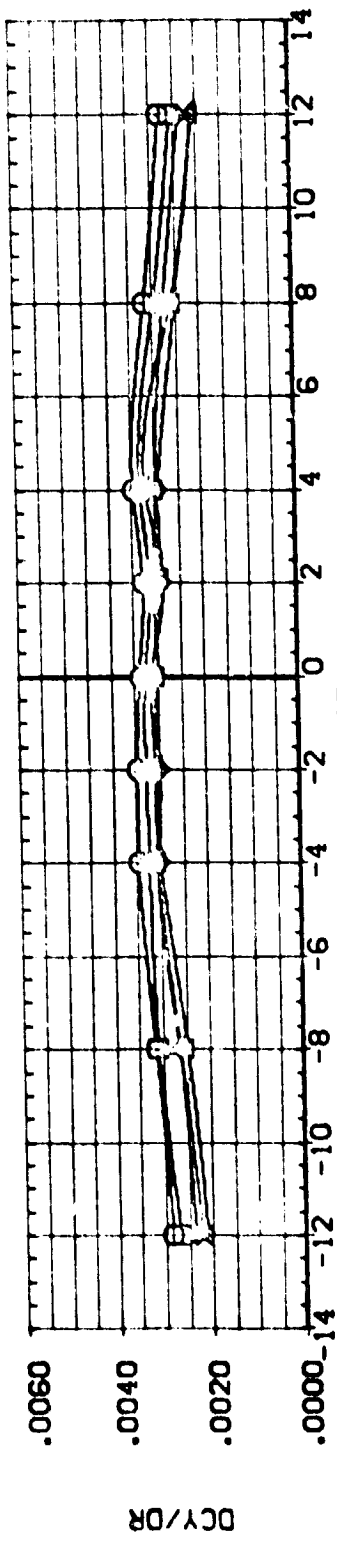
DATA SET SYMBOL	COEFFICIENT	DESCRIPTION	UNIT	REFERENCE INFORMATION	SCALE
[00-002]	0.0000	0.0000	0.0000	0.0000	0.0000
[00-003]	0.0000	0.0000	0.0000	0.0000	0.0000
[00-004]	0.0000	0.0000	0.0000	0.0000	0.0000
[00-005]	0.0000	0.0000	0.0000	0.0000	0.0000
[00-006]	0.0000	0.0000	0.0000	0.0000	0.0000



RUDDER DERIVATIVES, BASELINE ABES LOCATION (4 NACELLES)

[A]MACH = .20

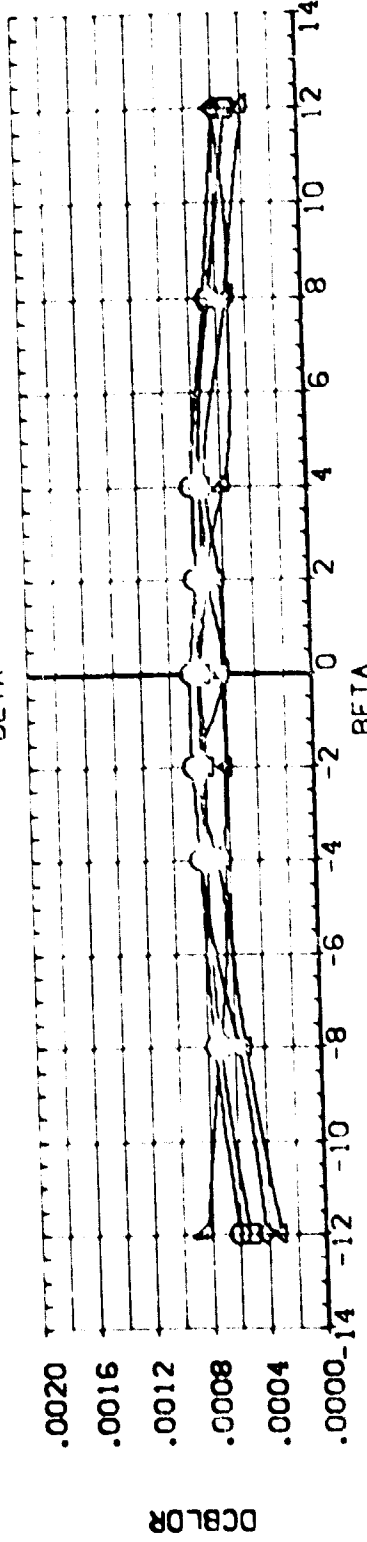
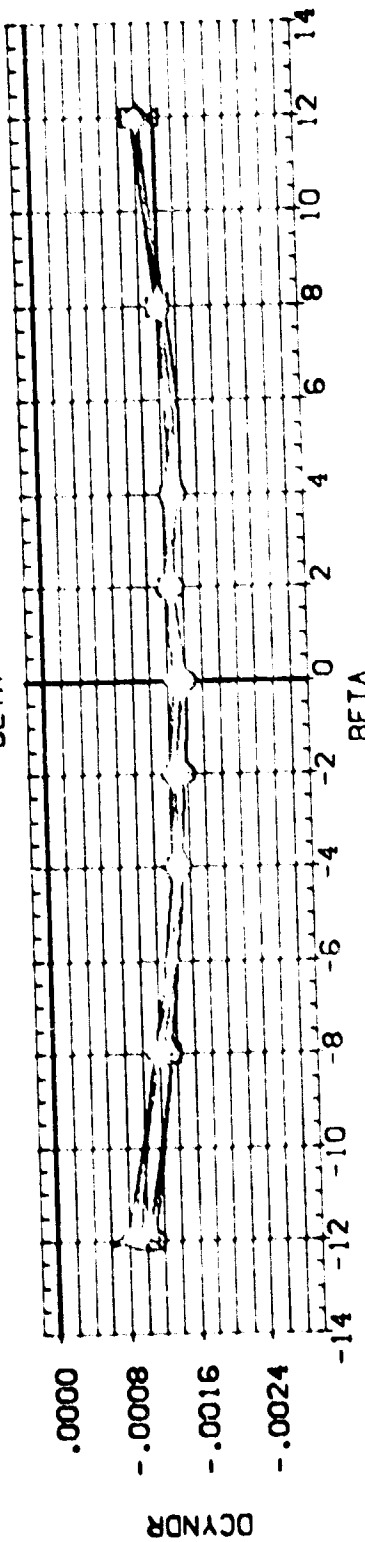
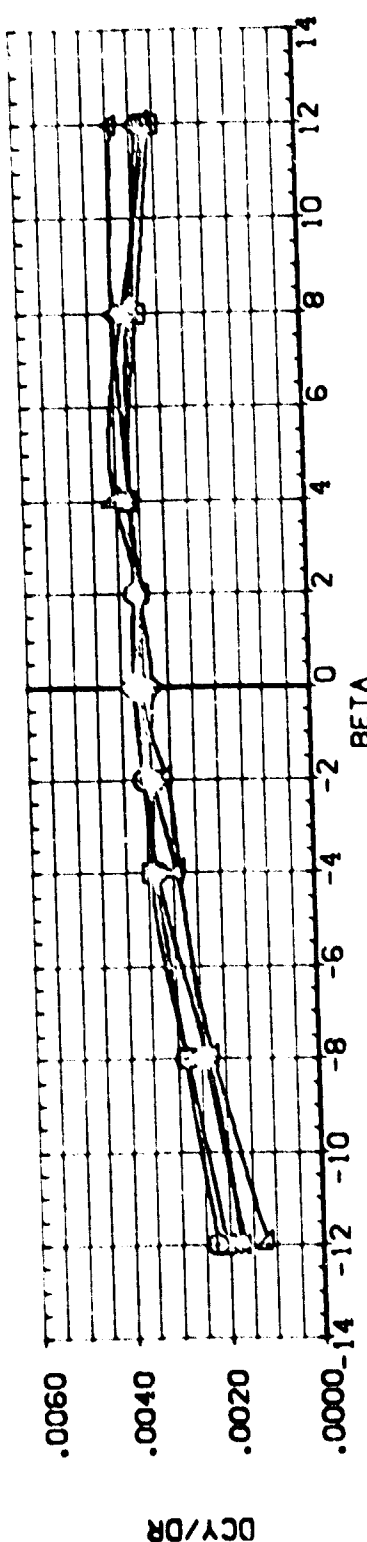
DATA SET SYMBOL	CONF. DESCRIPTION	DLTROR	ALPHA	NACVL	LIP	REFERENCE INFORMATION	SO.PT.
(000000)	NR 701.0405 058 8165507F 133687V55X10	-15.000	.000	.000	4.000	SREF	4.4119
(000001)	NR 701.0405 058 8165507F 133687V55X10	-15.000	.000	.000	4.000	LREF	19.2899
(000002)	NR 701.0405 058 8165507F 133687V55X10	-15.000	.000	.000	4.000	BREF	37.9219
(000003)	NR 701.0405 058 8165507F 133687V55X10	-15.000	.000	.000	4.000	KREF	43.5974
(000004)	NR 701.0405 058 8165507F 133687V55X10	-15.000	.000	.000	4.000	YREF	.0000
(000005)	NR 701.0405 058 8165507F 133687V55X10	-15.000	.000	.000	4.000	ZREF	16.2000
						SCALE	.0405



RUDDER DERIVATIVES, BASELINE ABES LOCATION (4 NACELLES)

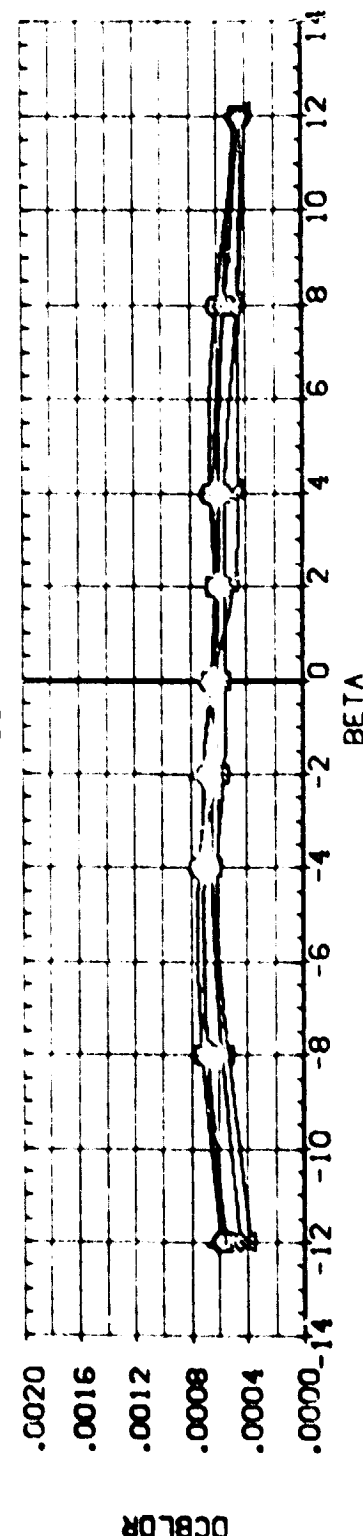
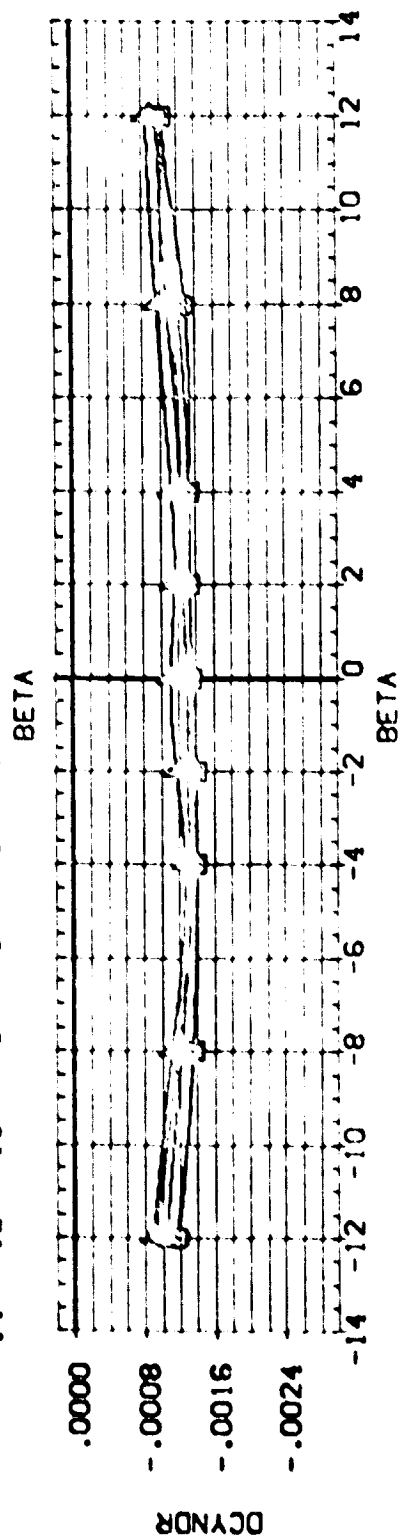
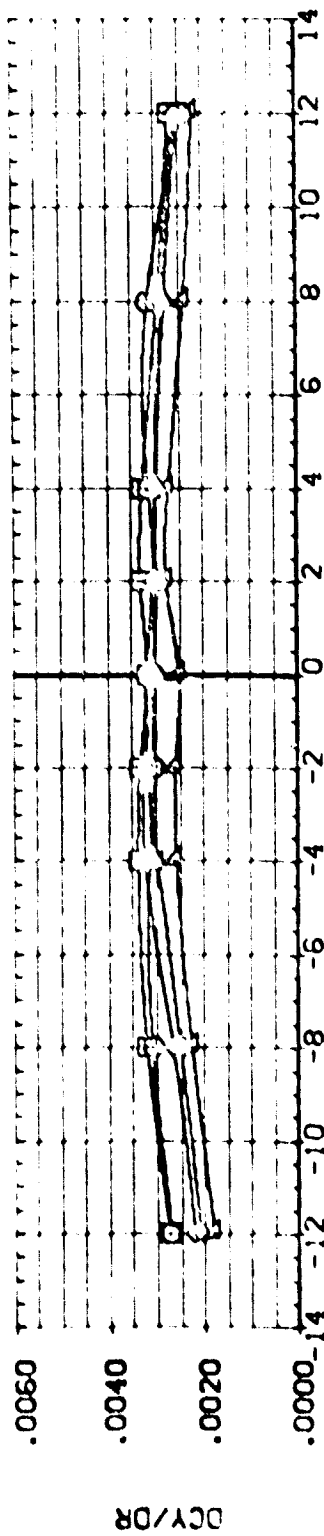
(A)MACH = .20

DATA SET SYMBOL	DEFIGURATION DESCRIPTION	CLIPDR	ALPHA	WINDIAL	LIP	REFERENCE INFORMATION
(00-064)	NP.701.0405 028 8 80007 14 3487 055 10	-7.500	.000	.00	4.000	4.4113 10025
(00-065)	NP.701.0405 028 8 80007 14 3487 055 10	-7.500	5.000	.00	4.000	10.000 10025
(00-066)	NP.701.0405 028 8 80007 14 3487 055 10	-7.500	10.000	.00	4.000	43.000 10025
(00-067)	NP.701.0405 028 8 80007 14 3487 055 10	-7.500	15.000	.00	4.000	100.000 10025
(00-068)	NP.701.0405 028 8 80007 14 3487 055 10	-7.500	18.000	.00	4.000	16.000 10025
						SCALE



RUDDER DERIVATIVES, ABES MOVED AFT .100 (WACELLE LENGTH)

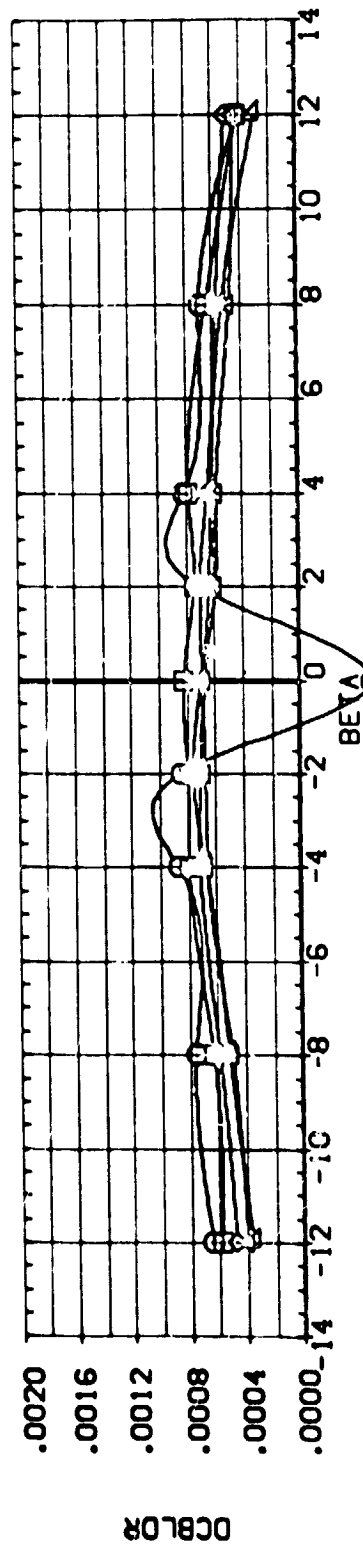
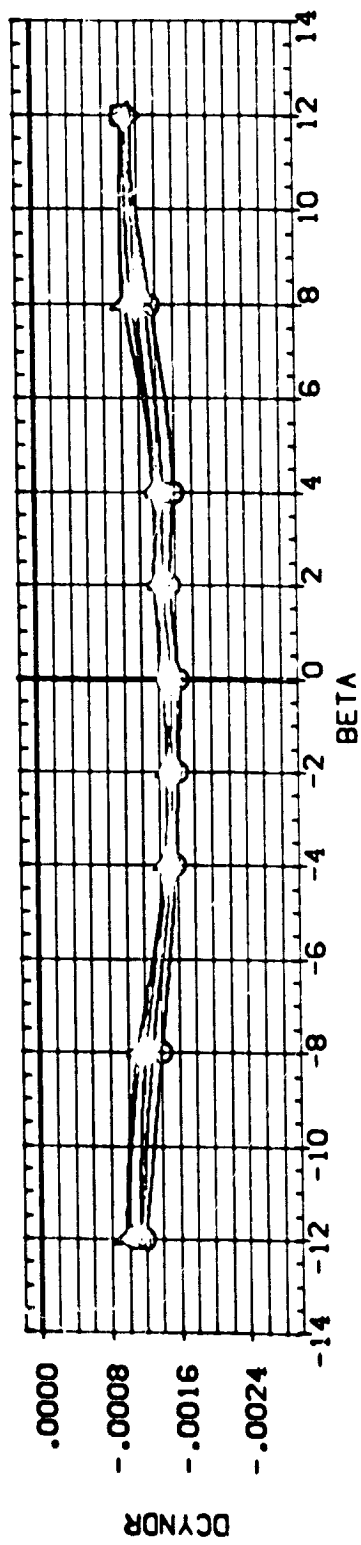
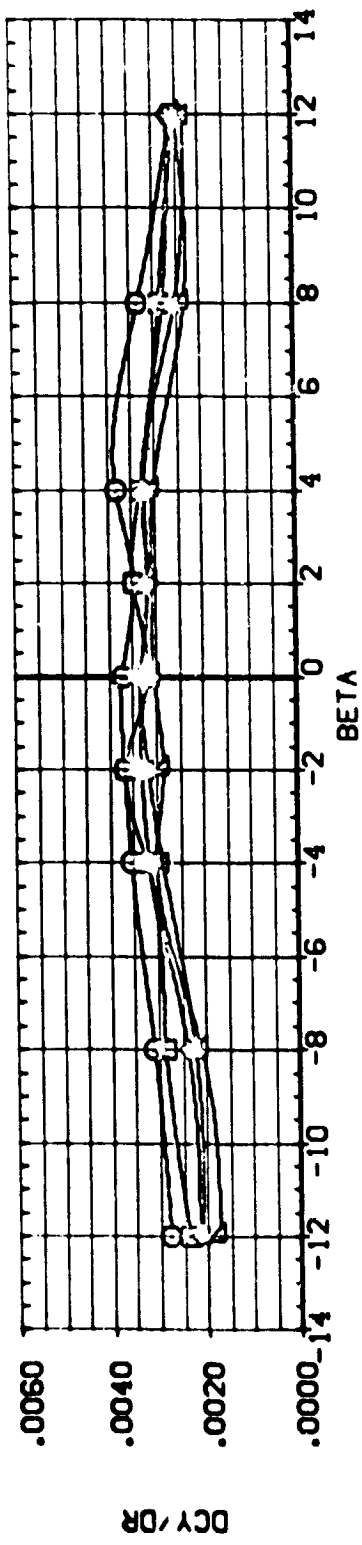
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ULTROR	ALPHA	MACH	LIP	REFERENCE INFORMATION
(000001)	10.701.0405	008 81650076 1.34875000 1.0	-15.000	.000	.00	4.000	9REF 4.4119 SQ.FT.
(000002)	10.701.0405	008 81650076 1.34875000 1.0	-15.000	.000	.00	4.000	1REF 19.2588 SQ.FT.
(000003)	10.701.0405	008 81650076 1.34875000 1.0	-15.000	.000	.00	4.000	2REF 37.5043 SQ.FT.
(000004)	10.701.0405	008 81650076 1.34875000 1.0	-15.000	.000	.00	4.000	3REF 43.5004 SQ.FT.
(000005)	10.701.0405	008 81650076 1.34875000 1.0	-15.000	.000	.00	4.000	4REF 16.2000 SQ.FT.
(000006)	10.701.0405	008 81650076 1.34875000 1.0	-15.000	.000	.00	4.000	5REF 16.2000 SQ.FT.



RUDDER DERIVATIVES. ABES MOVED AFT .10( NACELLE LENGTH)

(A)MACH = .20

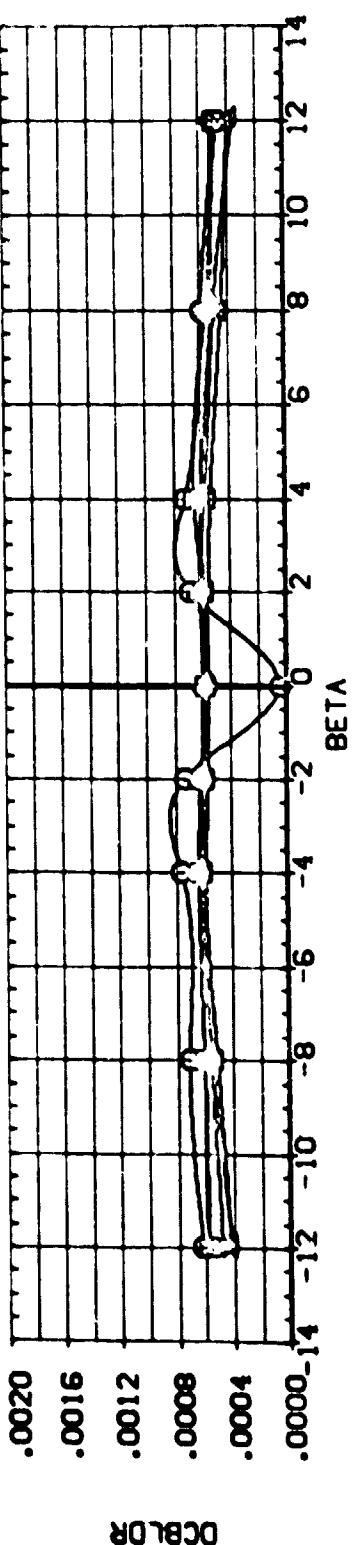
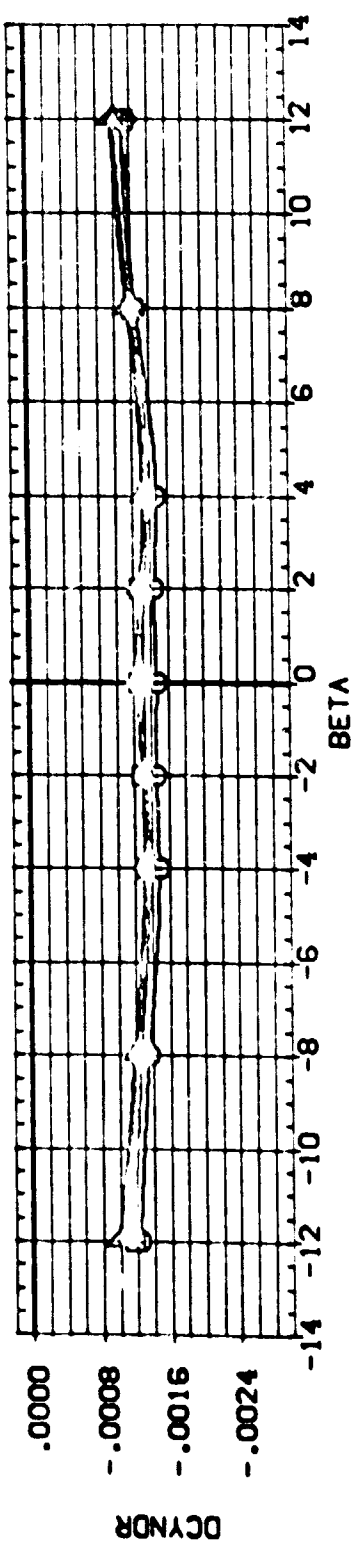
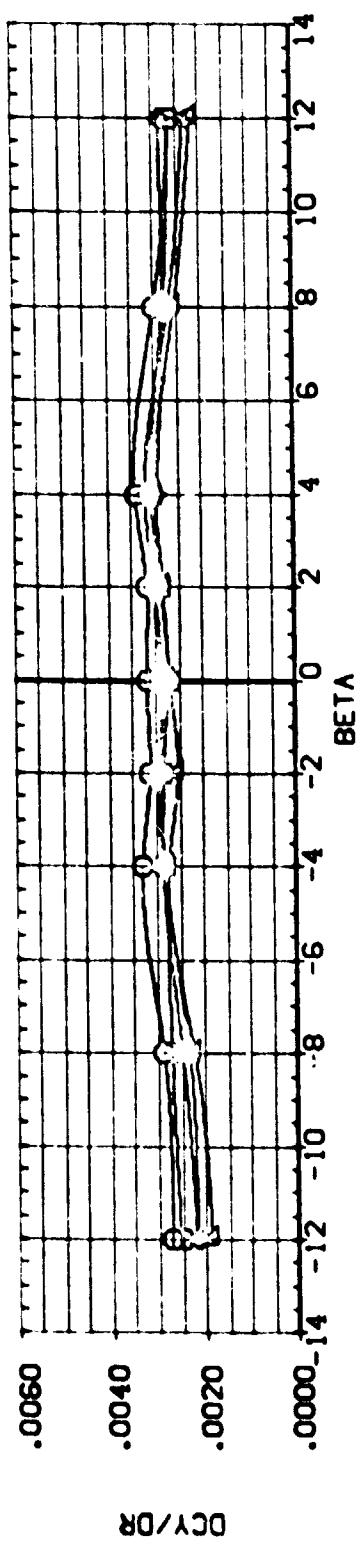
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DLTROR	ALPHA	NACA	LIP	REFERENCE INFORMATION
(00A056)	NR 701.0405 C38 B16C507F IJ3V87V5R5X10	-7.500	.000	.250	4.000	SREF 4.4119 SQ.FT.
(00A057)	NR 701.0405 C38 B16C507F IJ3V87V5R5X10	-7.500	5.000	.250	4.000	LREF 19.2998 INCHES
(00A058)	NR 701.0405 C38 B16C507F IJ3V87V5R5X10	-7.500	10.000	.250	4.000	BREF 37.9419 INCHES
(00A059)	NR 701.0405 C38 B16C507F IJ3V87V5R5X10	-7.500	15.000	.250	4.000	XREF 43.5574 INCHES
(00A060)	NR 701.0405 C38 B16C507F IJ3V87V5R5X10	-7.500	18.000	.250	4.000	YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



RUDDER DERIVATIVES. INBD ABES MOVED FWD, OUTBD AFT .25( NACELLE LENGTH)

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DLTRDR	ALPHA	NACUL	LIP	REFERENCE INFORMATION
(00N103)	N4.701.0405 078 816507F 133M87V5R5X10	-15.000	.000	.250	4.000	SREF 4.4119 SQ.FT.
(00N104)	N4.701.0405 078 816507F 133M87V5R5X10	-15.000	5.000	.250	4.000	LREF 19.2509 IN.OES
(00N105)	N4.701.0405 078 816507F 133M87V5R5X10	-15.000	10.000	.250	4.000	BREF 37.9348 IN.OES
(00N106)	N4.701.0405 078 816507F 133M87V5R5X10	-15.000	15.000	.250	4.000	XREF 43.5974 IN.OES
(00N107)	N4.701.0405 078 816507F 133M87V5R5X10	-15.000	18.000	.250	4.000	YREF .0000 IN.OES
						ZREF 16.2000 IN.OES
						SCALE .0405 SCALE

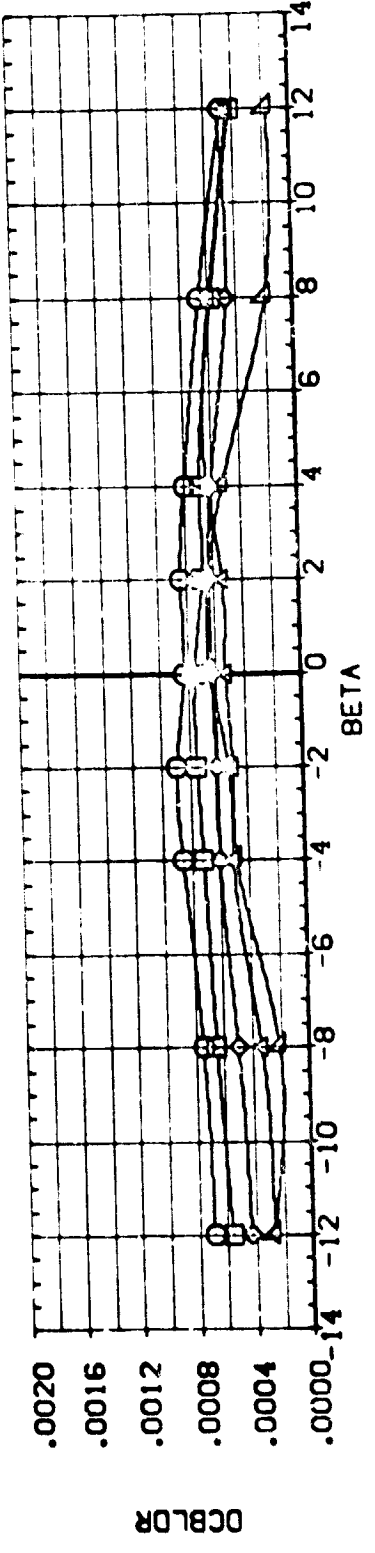
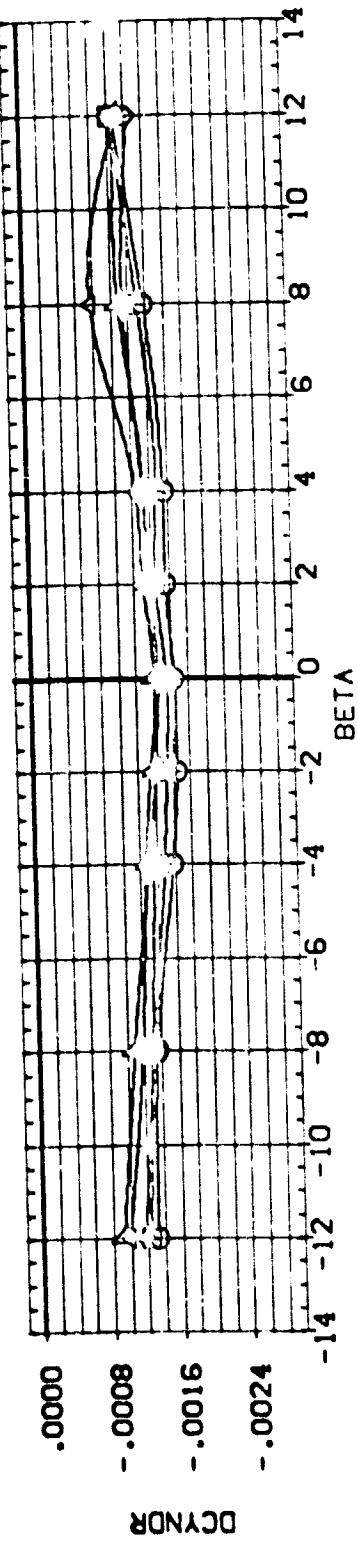
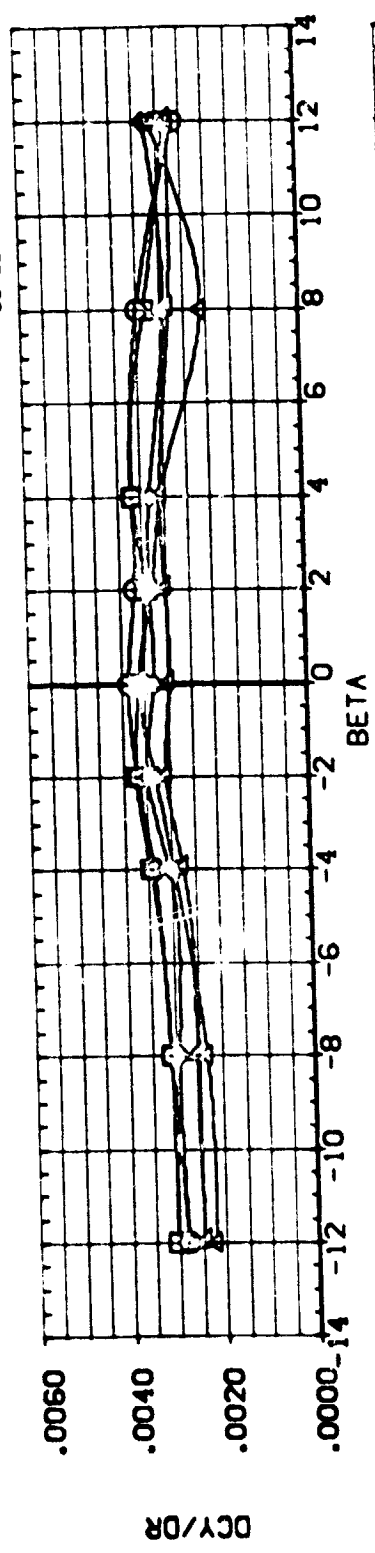


RUDDER DERIVATIVES, INBO ABES MOVED FWD, OUTBO AFT .25( NACELLE LENGTH)

(A)MACH = .20



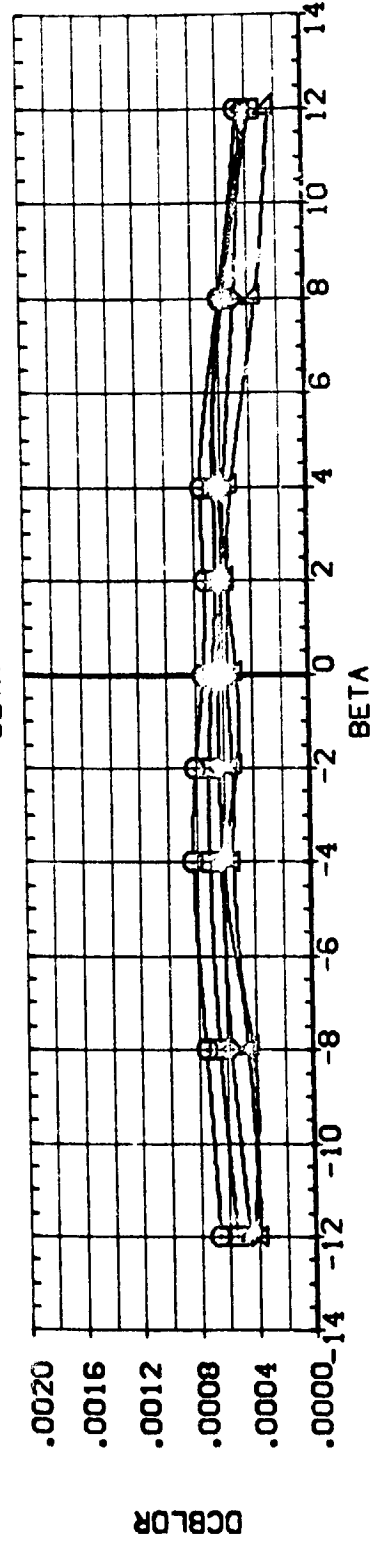
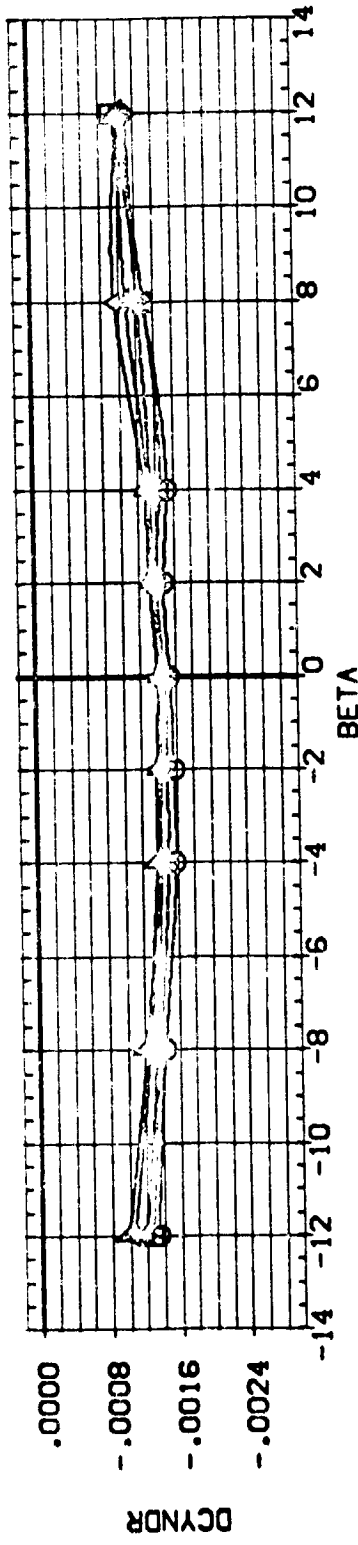
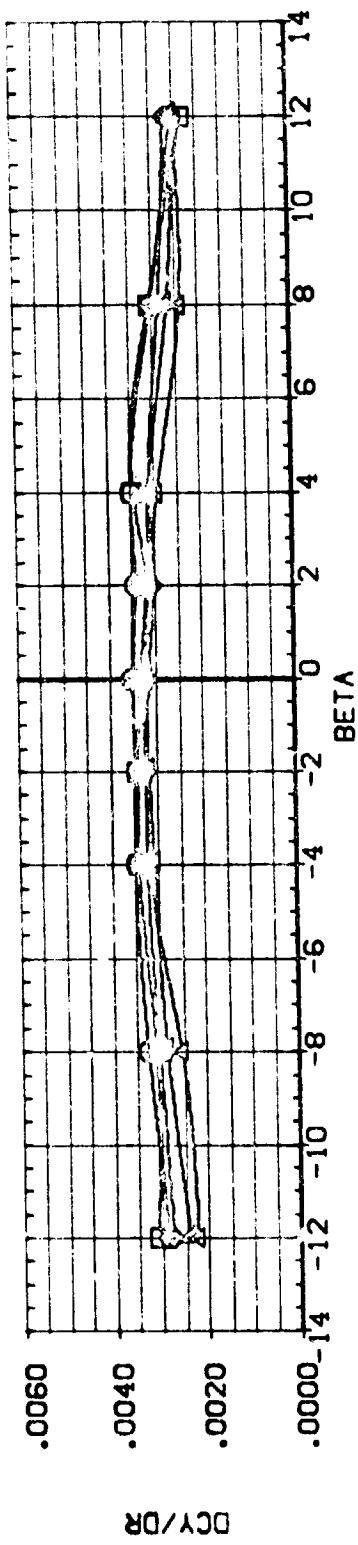
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTA X OR	ALPHA	MAC/A	LIP	REFERENCE INFORMATION
(DUN189)	NR.701.0405 098 B16C507F14487V5-S-X10	-7.500	.000	.490	4.000	SREF 4.4119 SQ.FT.
(DUN190)	NR.701.0405 093 B16C507F14487V5-S-X10	-7.500	5.000	.490	4.000	LSREF 19.7339 INCHES
(DUN191)	NR.701.0405 093 B16C507F14487V5-S-X10	-7.500	10.000	.490	4.000	ESREF 37.1319 INCHES
(DUN192)	NR.701.0405 098 B16C507F14487V5-S-X10	-7.500	15.000	.490	4.000	XPREF 43.1374 INCHES
(DUN193)	NR.701.0405 093 B16C507F14487V5-S-X10	-7.500	18.000	.490	4.000	YMPREF 16.2000 INCHES
						ZMPREF .0405 SCALE



RUDDER DERIVATIVES, 2 FUSELAGE AND 2 WING ABES

(A)MACH = .20

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	NACA/L	LTP	REFERENCE INFORMATION
(DDN196)	NR.701.0405 033 816C507F J4V87V55X10	15.000	.490	4.000	SREF 4.4119 SQ.FT.
(DDN197)	NR.701.0405 033 816C507F J4V87V55X10	5.000	.490	4.000	LREF 19.3893 INCHES
(DDN198)	NR.701.0405 033 816C507F J4V87V55X10	10.000	.490	4.000	BREF 37.5349 INCHES
(DDN199)	NR.701.0405 033 816C507F J4V87V55X10	15.000	.490	4.000	XREF 43.5374 INCHES
(DDN200)	NR.701.0405 033 816C507F J4V87V55X10	15.000	.490	4.000	YREF 16.2000 INCHES
					ZREF .0405 SCALE



RUDDER DERIVATIVES, 2 FUSELAGE AND 2 WING ABES

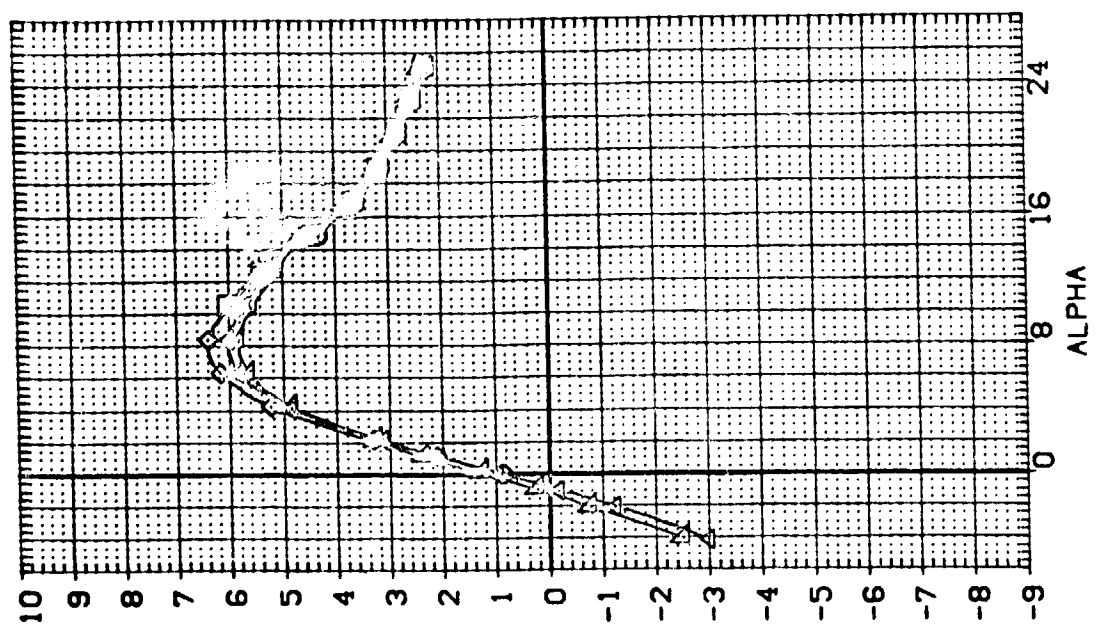
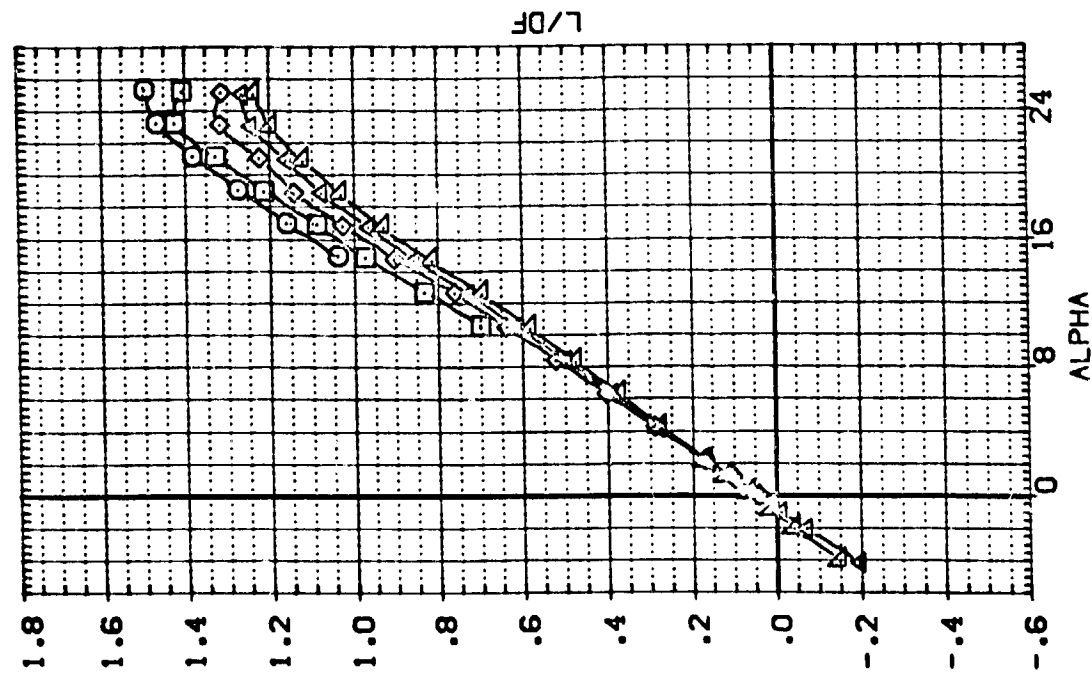
(A)MACH = .20

DATA SET SYMBOL    CONFIGURATION DESCRIPTION

(AD-208)	NR.701.0405	078	B16C507F	161V8V5X9+GP
(AD-224)	NR.701.0405	078	B16C507F	161Z37V5X9+GP
(AD-243)	NR.701.0405	078	B16C507F	161Z37V5X9+GP
(AD-264)	NR.701.0405	078	B16C507F	161Z37V5X10+GP
(AD-265)	NR.701.0405	078	B16C507F	161Z37V5X9+GP

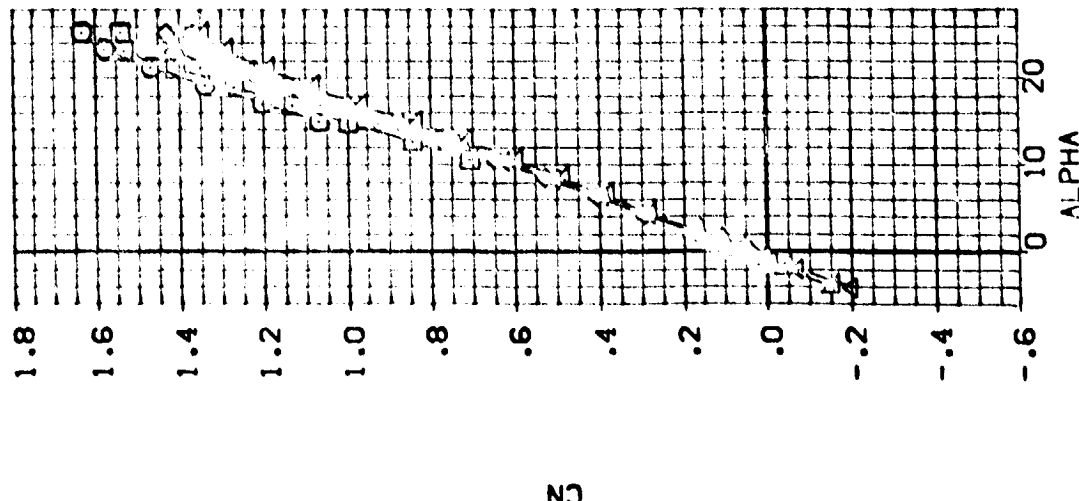
GP-POS    ELEVON    AILUON    S-FLAP    REFERENCE INFORMATION

240.000	.000	.000	-18.000	SREF	4.4119	50.FT.
209.000	.000	.000	-18.000	LREF	19.2559	INCHES
159.000	.000	.000	-18.000	BREF	37.9349	INCHES
109.000	.000	.000	-18.000	XREF	43.5974	INCHES
7.780	.000	.000	-18.000	TRIP	16.2000	INCHES
				SCALE	.0405	SCALE



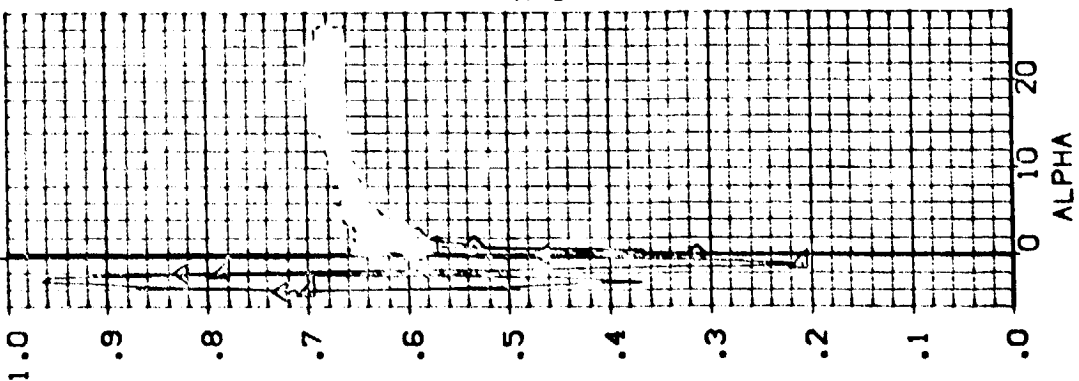
EFFECT OF GROUND PLANE POSITION, ABES OFF  
 (A)MACH = .16

DATA SET SYMBOL	CONF	ORATION	DESCRIPTION
(A2208)	18.70	0405	093 8 85000 10 26875 09+3
(A2234)	18.70	0405	093 8 85000 10 26875 09+3
(A2243)	18.70	0405	093 8 85000 10 26875 09+3
(A2264)	18.70	0405	093 8 85000 10 26875 09+3
(A2265)	18.70	0405	093 8 85000 10 26875 09+3

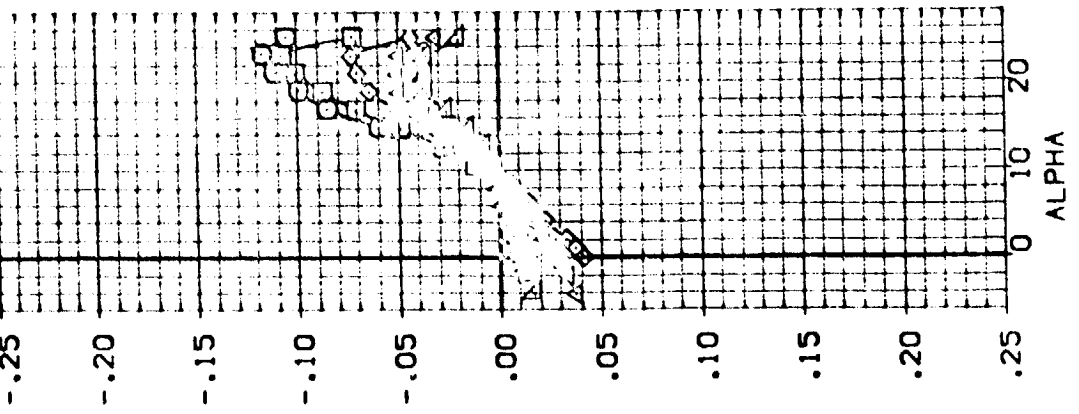


ZN

OP-PUS	ELEVON	AILERON	B-FLAP
240.000	.000	.000	-18.000
209.000	.000	.000	-18.000
159.000	.000	.000	-18.000
109.000	.000	.000	-18.000
7.700	.000	.000	-18.000



CLM

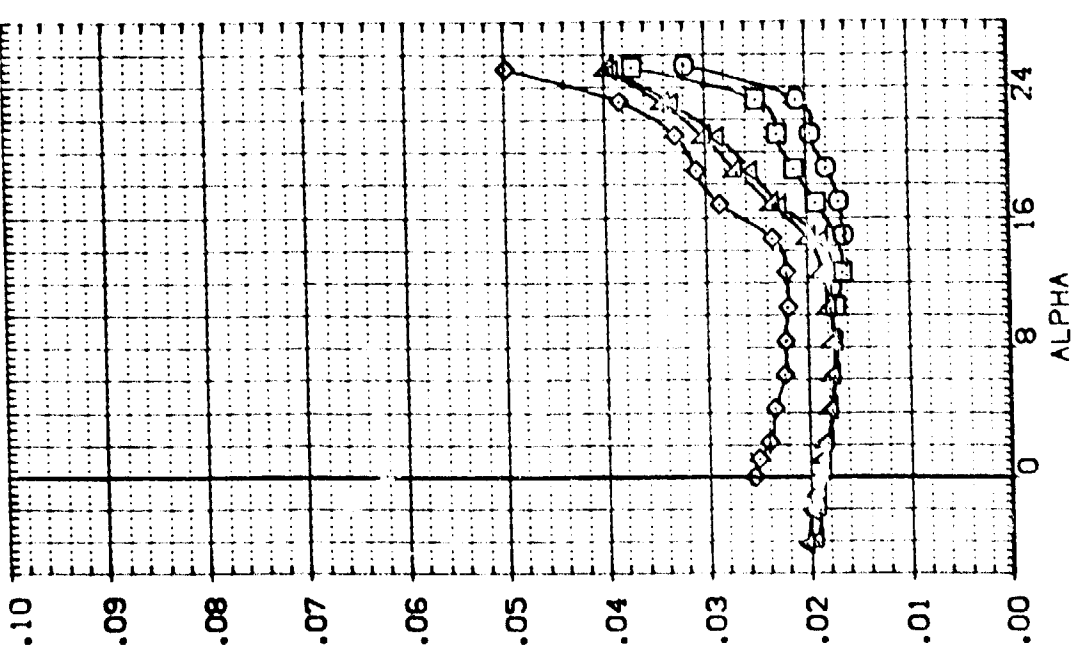
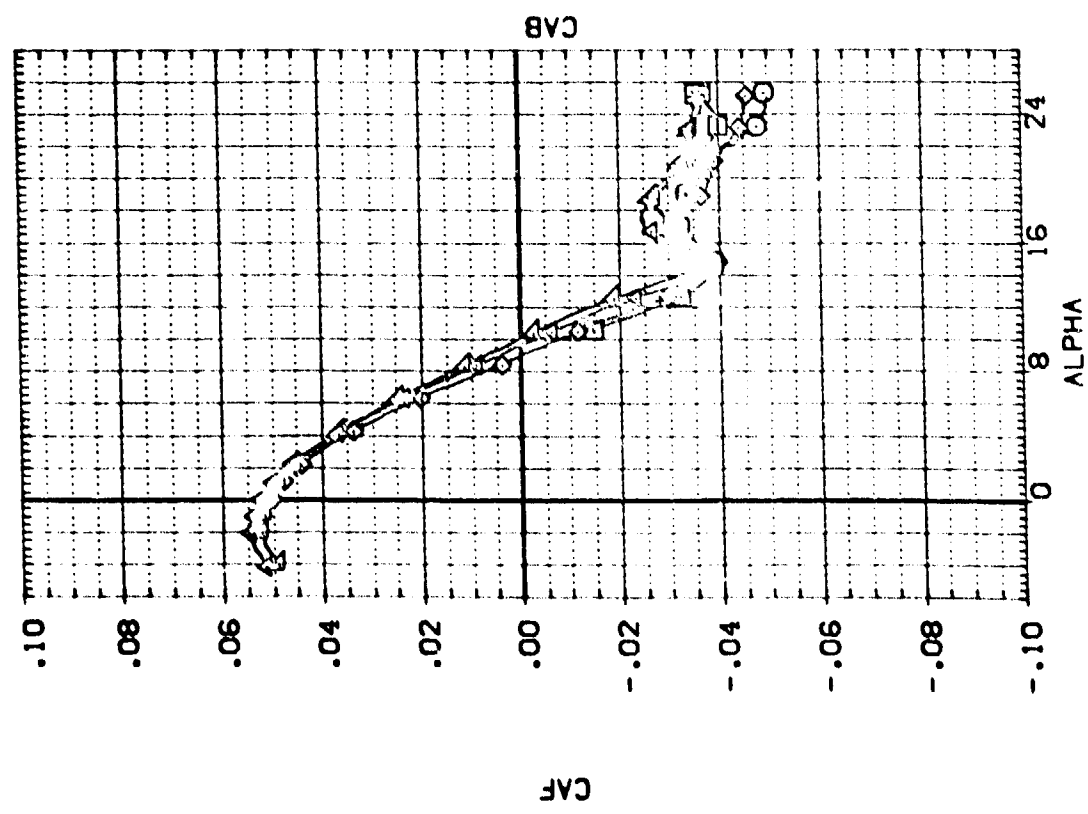


EFFECT OF GROUND PLANE POSITION, ABES OFF

(A)MACH = .18

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(AD-008)	□	1R-701-0405	8180507F 16187VS3+GP
(AD-024)	○	1R-701-0405	8180507F 1612-87VS3+GP
(AD-043)	△	1R-701-0405	8180507F 1612-87VS3+GP
(AD-064)	×	1R-701-0405	8180507F 1612-87VS3+GP
(AD-065)	◇	1R-701-0405	8180507F 1612-87VS3+GP

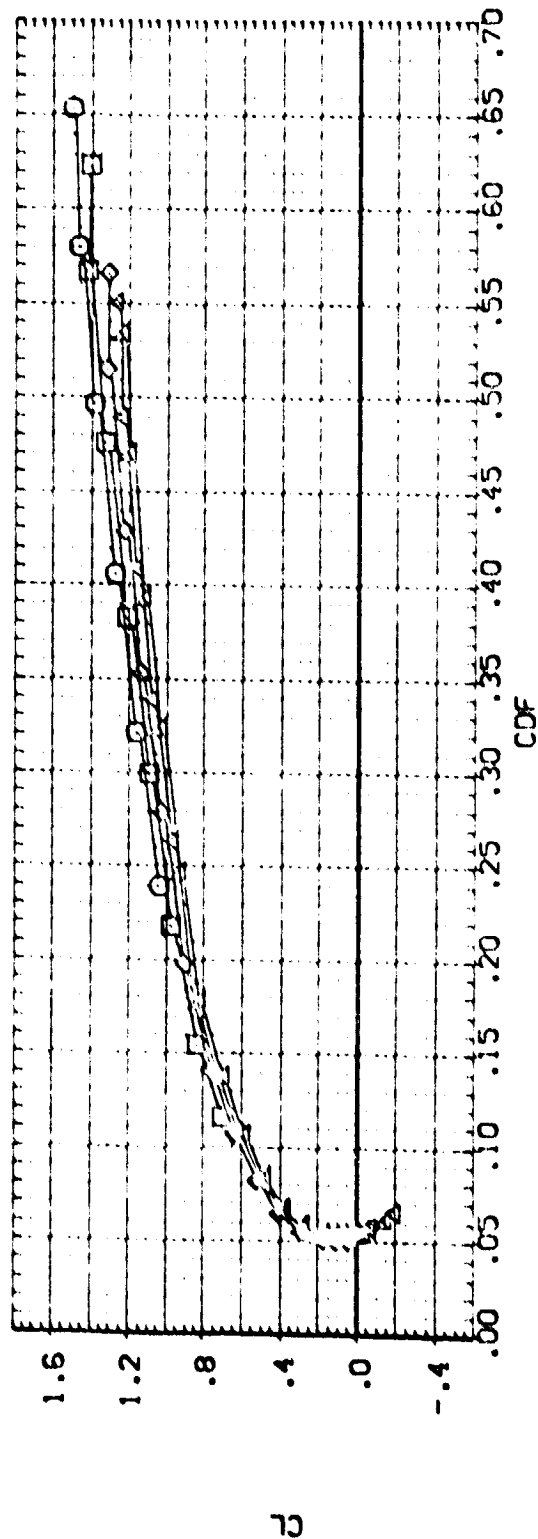
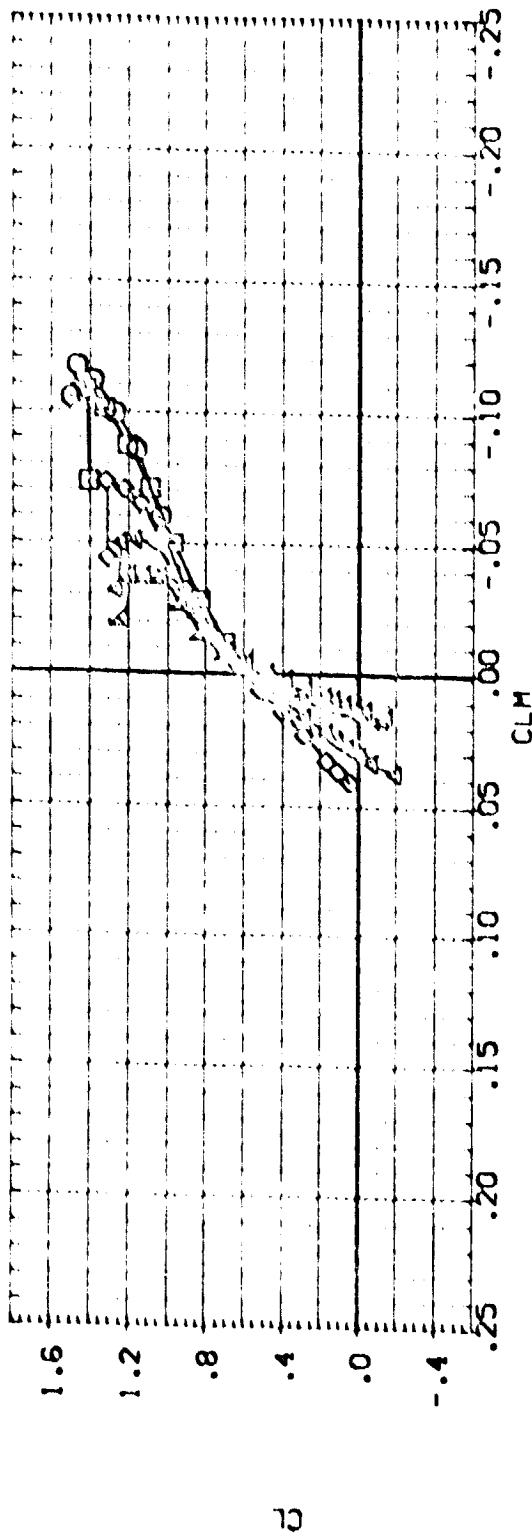
GP-POS	ELEVATION	ALUDON	B-FLAP	REFERENCE INFORMATION
240.000	.000	.000	-18.000	SREF 4.4119 50.000
209.000	.000	.000	-18.000	LREF 19.2529 10.000
159.000	.000	.000	-18.000	BREF 37.9319 10.000
109.000	.000	.000	-18.000	XREF 43.5974 10.000
7.780	.000	.000	-18.000	YREF 16.2000 10.000
				ZREF 16.2000 10.000
				SCALE .0405



EFFECT OF GROUND PLANE POSITION, ABES OFF

(A)MACH = .16

DATA SET	SMOOTH	CONFIDENCE	INFORMATION	REFERENCE INFORMATION	SCALE
130001	10.00	20.00	20.00	20.00	20.00
130002	10.00	20.00	20.00	20.00	20.00
130003	10.00	20.00	20.00	20.00	20.00
130004	10.00	20.00	20.00	20.00	20.00
130005	10.00	20.00	20.00	20.00	20.00
130006	10.00	20.00	20.00	20.00	20.00
130007	10.00	20.00	20.00	20.00	20.00
130008	10.00	20.00	20.00	20.00	20.00
130009	10.00	20.00	20.00	20.00	20.00
130010	10.00	20.00	20.00	20.00	20.00
130011	10.00	20.00	20.00	20.00	20.00
130012	10.00	20.00	20.00	20.00	20.00
130013	10.00	20.00	20.00	20.00	20.00
130014	10.00	20.00	20.00	20.00	20.00
130015	10.00	20.00	20.00	20.00	20.00
130016	10.00	20.00	20.00	20.00	20.00
130017	10.00	20.00	20.00	20.00	20.00
130018	10.00	20.00	20.00	20.00	20.00
130019	10.00	20.00	20.00	20.00	20.00
130020	10.00	20.00	20.00	20.00	20.00
130021	10.00	20.00	20.00	20.00	20.00
130022	10.00	20.00	20.00	20.00	20.00
130023	10.00	20.00	20.00	20.00	20.00
130024	10.00	20.00	20.00	20.00	20.00
130025	10.00	20.00	20.00	20.00	20.00
130026	10.00	20.00	20.00	20.00	20.00
130027	10.00	20.00	20.00	20.00	20.00
130028	10.00	20.00	20.00	20.00	20.00
130029	10.00	20.00	20.00	20.00	20.00
130030	10.00	20.00	20.00	20.00	20.00
130031	10.00	20.00	20.00	20.00	20.00
130032	10.00	20.00	20.00	20.00	20.00
130033	10.00	20.00	20.00	20.00	20.00
130034	10.00	20.00	20.00	20.00	20.00
130035	10.00	20.00	20.00	20.00	20.00
130036	10.00	20.00	20.00	20.00	20.00
130037	10.00	20.00	20.00	20.00	20.00
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130039	10.00	20.00	20.00	20.00	20.00
130040	10.00	20.00	20.00	20.00	20.00
130041	10.00	20.00	20.00	20.00	20.00
130042	10.00	20.00	20.00	20.00	20.00
130043	10.00	20.00	20.00	20.00	20.00
130044	10.00	20.00	20.00	20.00	20.00
130045	10.00	20.00	20.00	20.00	20.00
130046	10.00	20.00	20.00	20.00	20.00
130047	10.00	20.00	20.00	20.00	20.00
130048	10.00	20.00	20.00	20.00	20.00
130049	10.00	20.00	20.00	20.00	20.00
130050	10.00	20.00	20.00	20.00	20.00
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130054	10.00	20.00	20.00	20.00	20.00
130055	10.00	20.00	20.00	20.00	20.00
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130059	10.00	20.00	20.00	20.00	20.00
130060	10.00	20.00	20.00	20.00	20.00
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130064	10.00	20.00	20.00	20.00	20.00
130065	10.00	20.00	20.00	20.00	20.00
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130067	10.00	20.00	20.00	20.00	20.00
130068	10.00	20.00	20.00	20.00	20.00
130069	10.00	20.00	20.00	20.00	20.00
130070	10.00	20.00	20.00	20.00	20.00
130071	10.00	20.00	20.00	20.00	20.00
130072	10.00	20.00	20.00	20.00	20.00
130073	10.00	20.00	20.00	20.00	20.00
130074	10.00	20.00	20.00	20.00	20.00
130075	10.00	20.00	20.00	20.00	20.00
130076	10.00	20.00	20.00	20.00	20.00
130077	10.00	20.00	20.00	20.00	20.00
130078	10.00	20.00	20.00	20.00	20.00
130079	10.00	20.00	20.00	20.00	20.00
130080	10.00	20.00	20.00	20.00	20.00
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130090	10.00	20.00	20.00	20.00	20.00
130091	10.00	20.00	20.00	20.00	20.00
130092	10.00	20.00	20.00	20.00	20.00
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130094	10.00	20.00	20.00	20.00	20.00
130095	10.00	20.00	20.00	20.00	20.00
130096	10.00	20.00	20.00	20.00	20.00
130097	10.00	20.00	20.00	20.00	20.00
130098	10.00	20.00	20.00	20.00	20.00
130099	10.00	20.00	20.00	20.00	20.00
130100	10.00	20.00	20.00	20.00	20.00

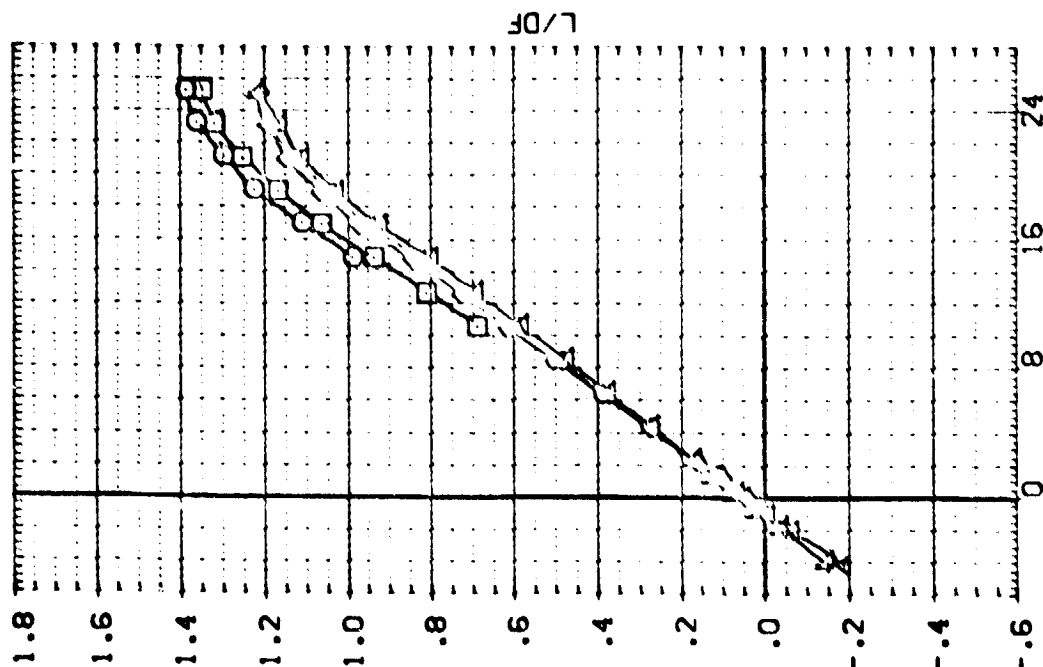
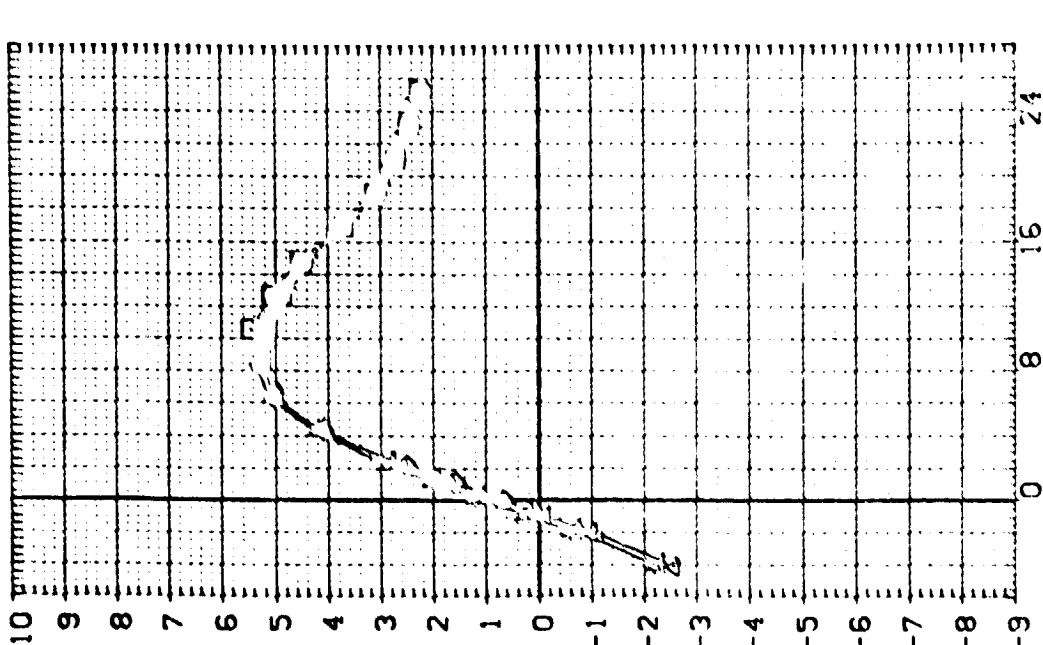


EFFECT OF GROUND PLANE POSITION, ABES OFF

CADWASH = .16

DATA SET 5000. CDF COMPUTATION DESCRIPTION

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100005	100005	100005	100005	100005	100005
100006	100006	100006	100006	100006	100006
100007	100007	100007	100007	100007	100007
100008	100008	100008	100008	100008	100008
100009	100009	100009	100009	100009	100009
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100039	100039	100039	100039	100039	100039
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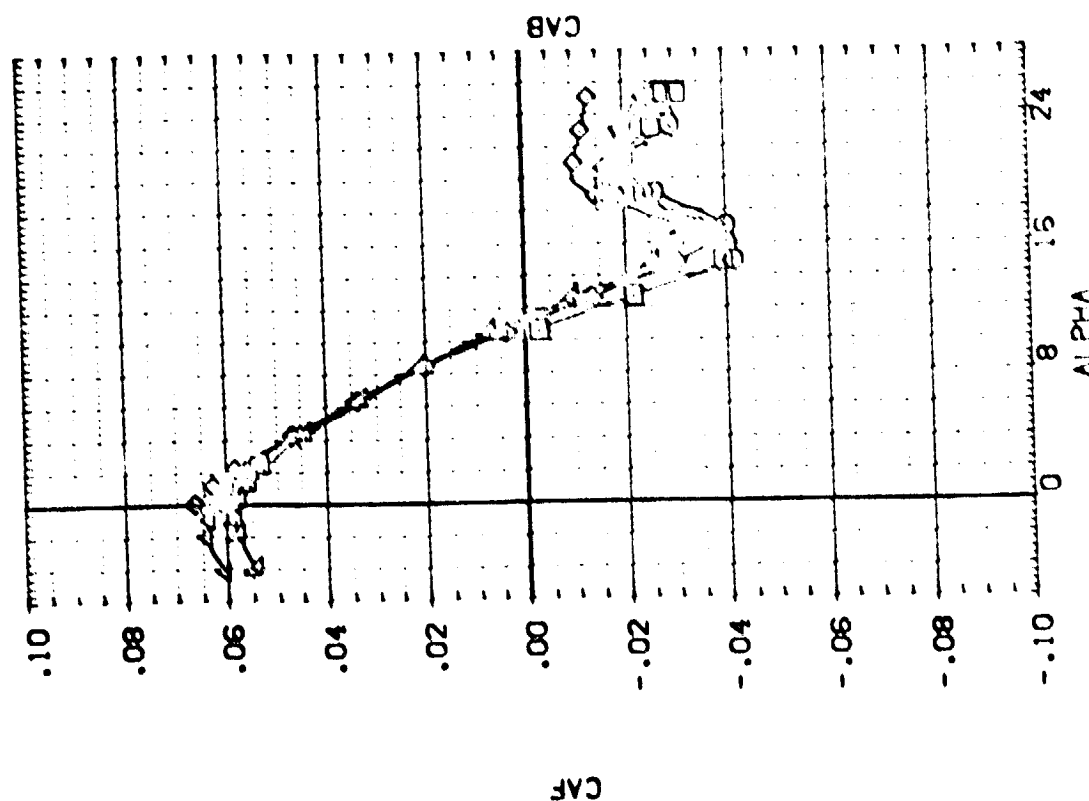
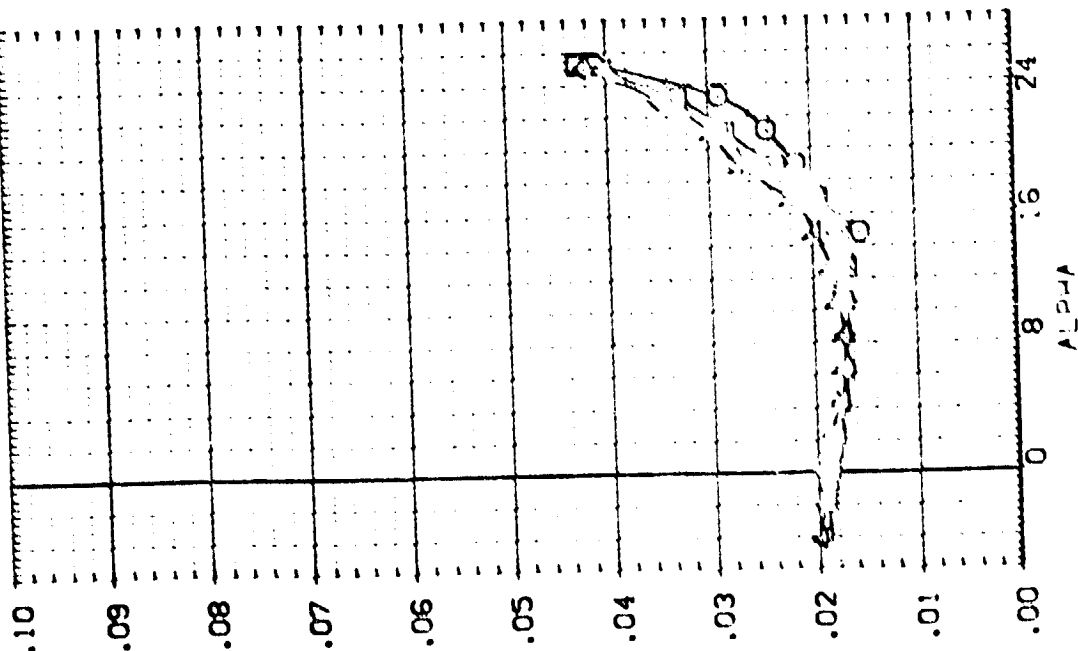
EFFECT OF GROUND PLANE POSITION, BASELINE ABES LOCATION (4 WACELLES)

CALCULATED = 1.16

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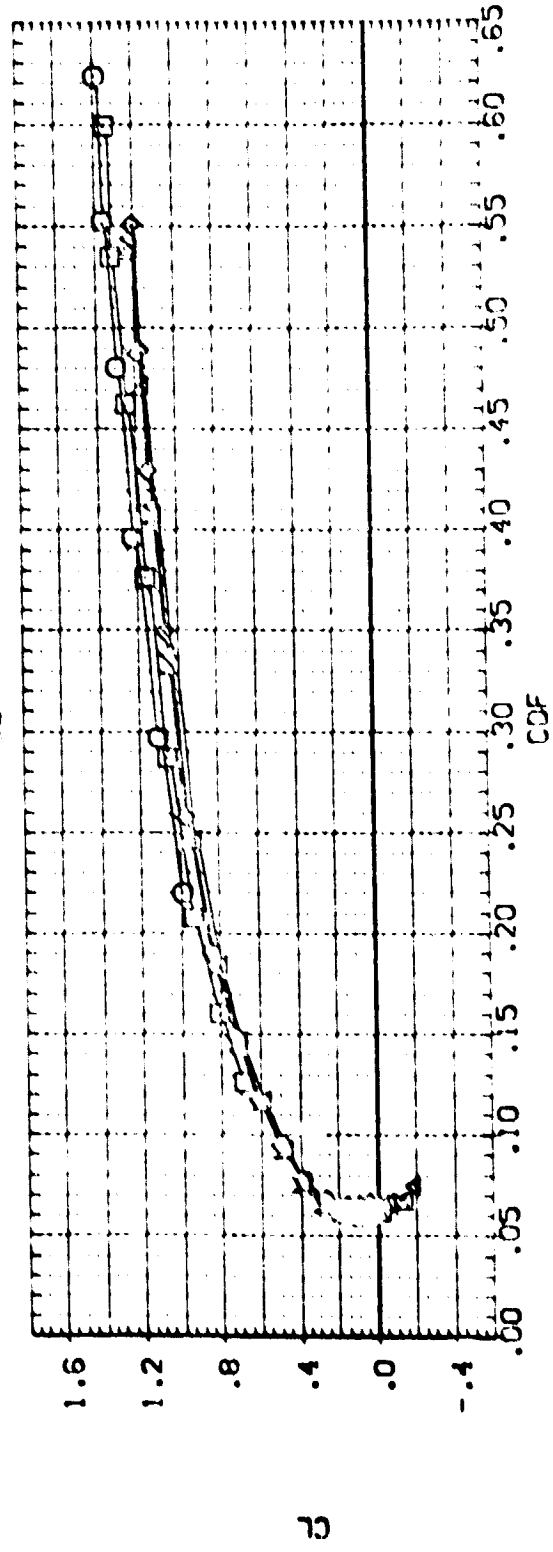
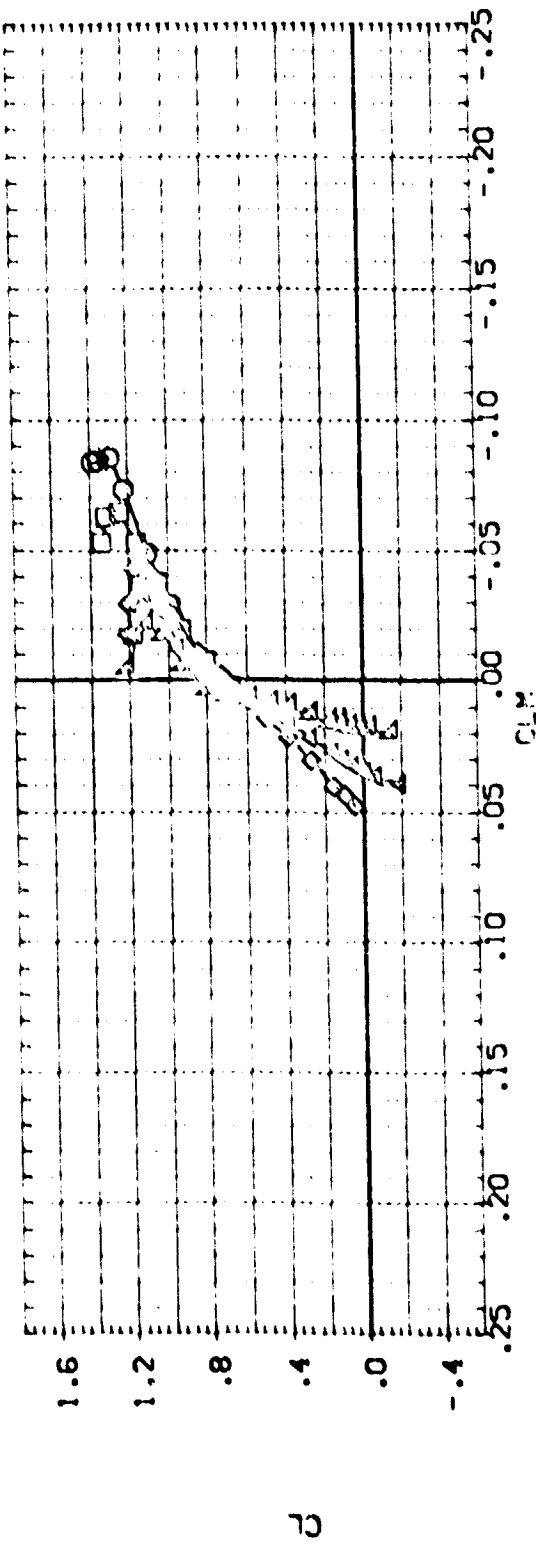
[illegible]

ALPHA  
EFFECT OF CRYSTAL PLANE POSITION, BASELINE ABES LOCATION(4 WAGELLES)

550

11

DATA SET SYMBOL	CONF. BUREAU	DESCRIPTION	SP-RPS	9. FLAP	WCOL	LIP	REFERENCE INFORMATION
AD-021	10	2405 000 9. 000000	240 000	- 8.000	.000	1.000	SPRF 4.419 50. FT.
AD-022	10	2405 000 9. 000000	240 000	- 8.000	.000	1.000	SPRF 19.2229 100. FT.
AD-023	10	2405 000 9. 000000	240 000	- 8.000	.000	1.000	SPRF 37.3419 100. FT.
AD-024	10	2405 000 9. 000000	240 000	- 8.000	.000	1.000	SPRF 43.5874 100. FT.
AD-025	10	2405 000 9. 000000	240 000	- 8.000	.000	1.000	SPRF 16.2000 100. FT.
AD-026	10	2405 000 9. 000000	240 000	- 8.000	.000	1.000	SPRF 16.2000 100. FT.

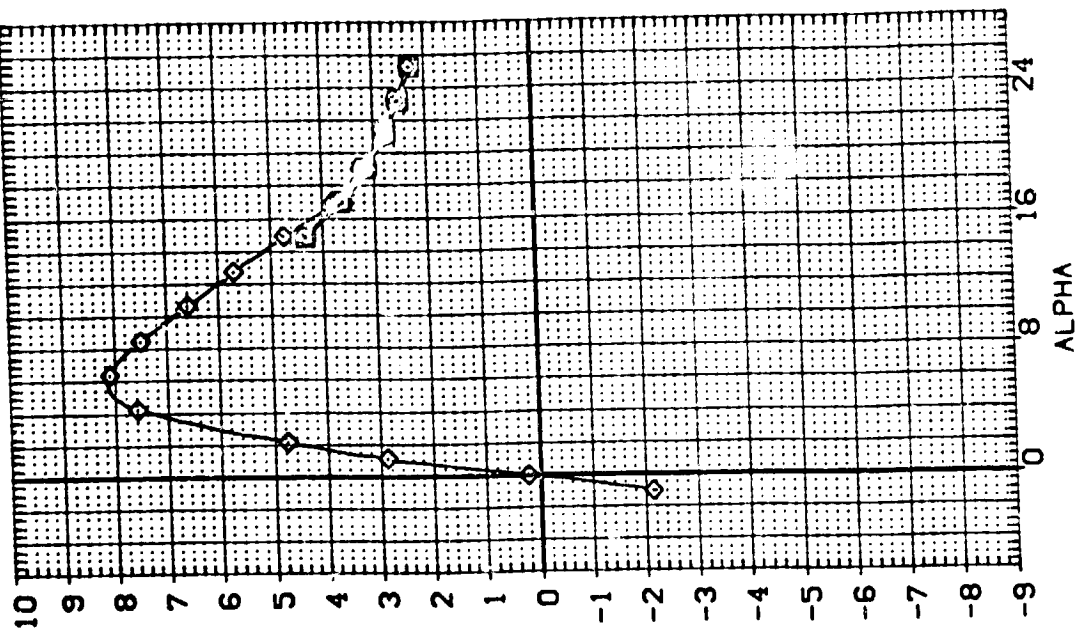
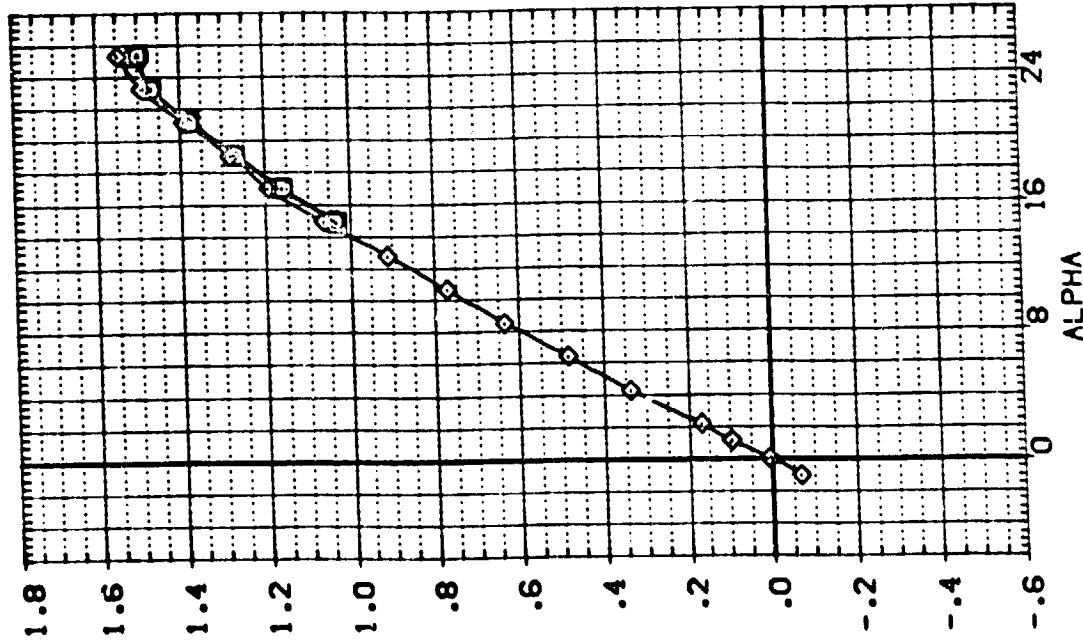


EFFECT OF GROUND PLANE POSITION, BASELINE ABES LOCATION (4 NACELLES)

APPROACH = 1.5

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ADN208) NR.701.0405 G88 B16CS07F161V87V5X9+GP  
 (ADN218) NR.701.0405 G88 B16CS07F1612467V5X9+GP  
 (ADN219) NR.701.0405 G88 B16CS07F1V87V5X9+GP

GP-POS ELEVON AIRLON B-FLAP REFERENCE INFORMATION  
 240.000 .000 .000 SREF 4.4119 50.FT.  
 240.000 .000 .000 LREF 19.2009 INCHES  
 240.000 .000 .000 BREF 37.9319 INCHES  
 240.000 .000 .000 XREF 43.5974 INCHES  
 240.000 .000 .000 YREF 16.2000 INCHES  
 240.000 .000 .000 ZREF 16.2000 INCHES  
 240.000 .000 .000 SCALE .0405 SCALE



EFFECT OF LANDING GEAR, HEIGHT ABOVE GROUND = 240.0 INCHES

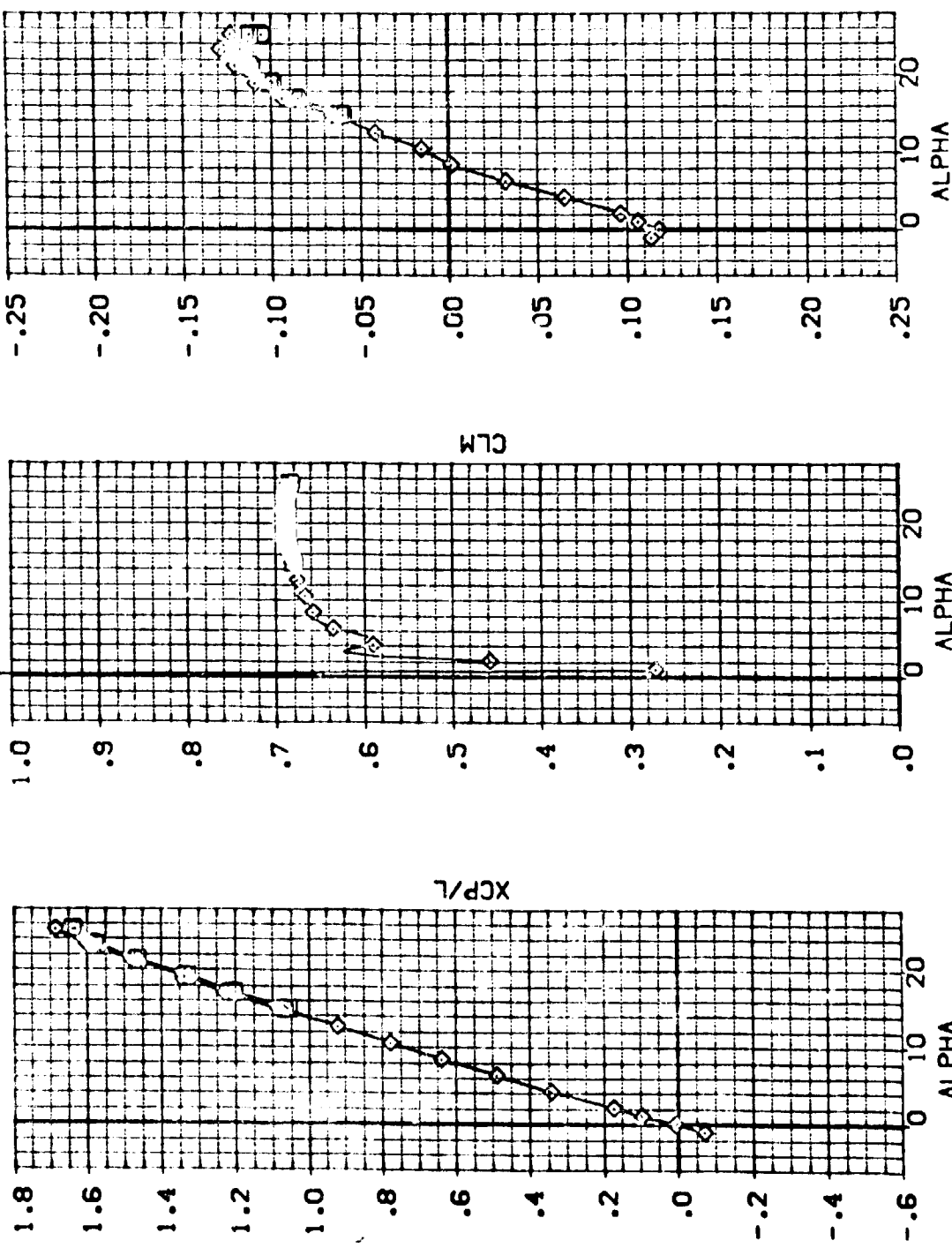
(A)MACH = .16

DATA SET SYMBOL  
 (AD208)  
 (AD218)  
 (AD219)

CONFIGURATION DESCRIPTION  
 NR 1701 0405 CR8 B 805077 1618775X9+CP  
 NR 1701 0405 CR3 B 805077 1618775X9+CP  
 NR 1701 0405 CR3 B 805077 1618775X9+CP

REFERENCE INFORMATION  
 SREF 4.4119 50 FT  
 LREF 19.2339 100 FT  
 PREF 37.9349 100 FT  
 XREF 43.5974 100 FT  
 YREF 16.2000 100 FT  
 ZREF 16.2000 100 FT  
 SCALE .0405

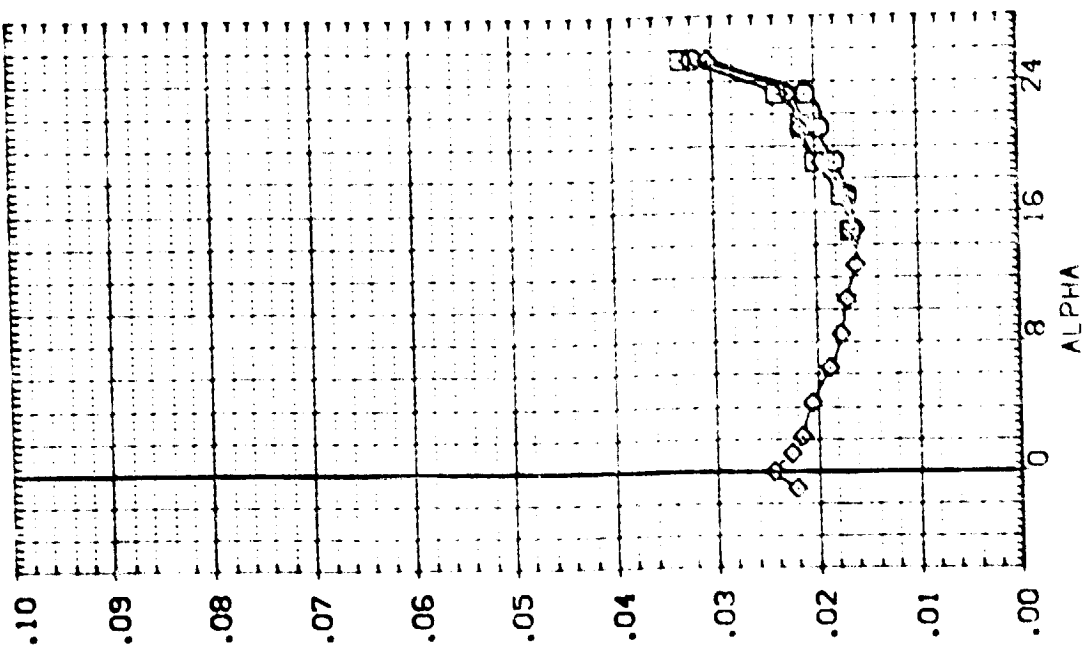
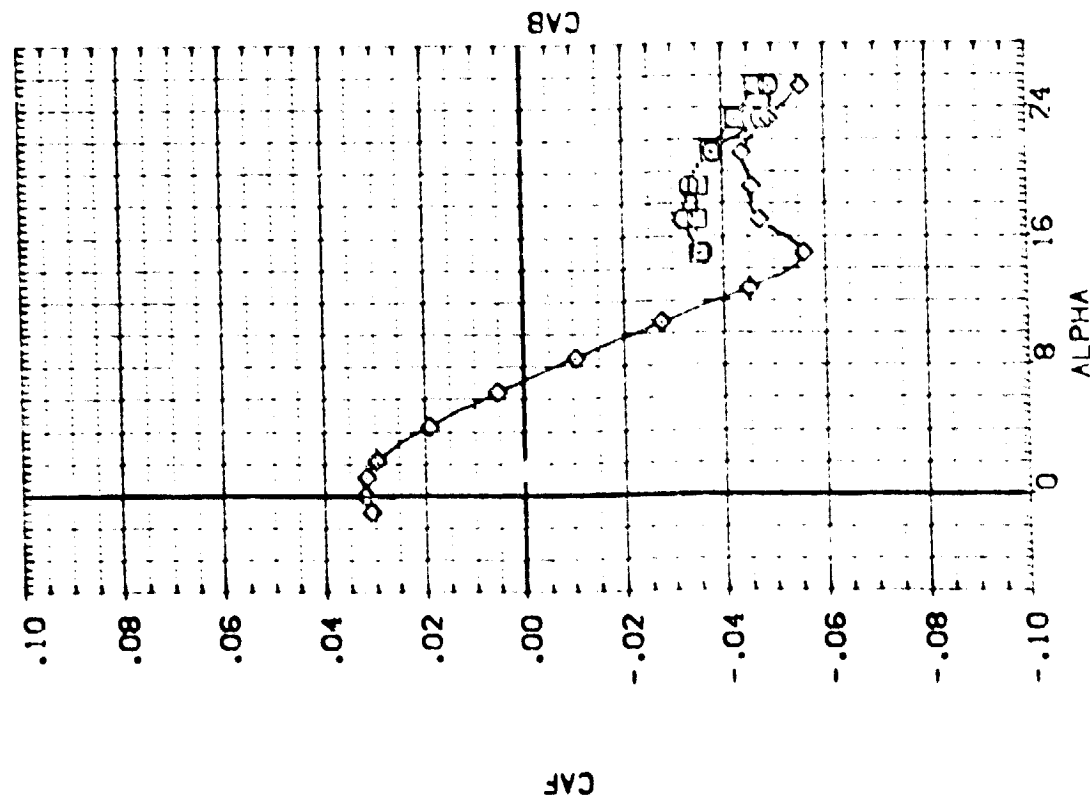
CP-POS ELEVON AILERON B-FLAP  
 240.000 .000 .000 -18.000  
 240.000 .000 .000 -18.000  
 240.000 .000 .000 -18.000



EFFECT OF LANDING GEAR, HEIGHT ABOVE GROUND = 240.0 INCHES

(M)MACH = .16

CP+CS	ELEVON	ALUPON	B-FUDP	REFERENCE INFORMATION
240,000	.000	.000	SWF	4,4119
240,000	.000	.000	USF	13,2223
240,000	.000	.000	SWF	27,5553
240,000	.000	.000	WFP	43,5574
			WFP	10,0000
			WFP	16,2500
			SCALE	SCALE



HEIGHT ABOVE GROUND = 240.0 INCHES



DATA SET SYMBOLS: C, S, E, P, A, T, I, O, N, D, E, S, C, R, I, P, T, I, O, N

1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000
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1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000
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1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000
1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000

CP-405  
240.000  
240.000  
240.000  
240.000  
240.000  
240.000

ELEVON  
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0.000  
0.000  
0.000  
0.000  
0.000

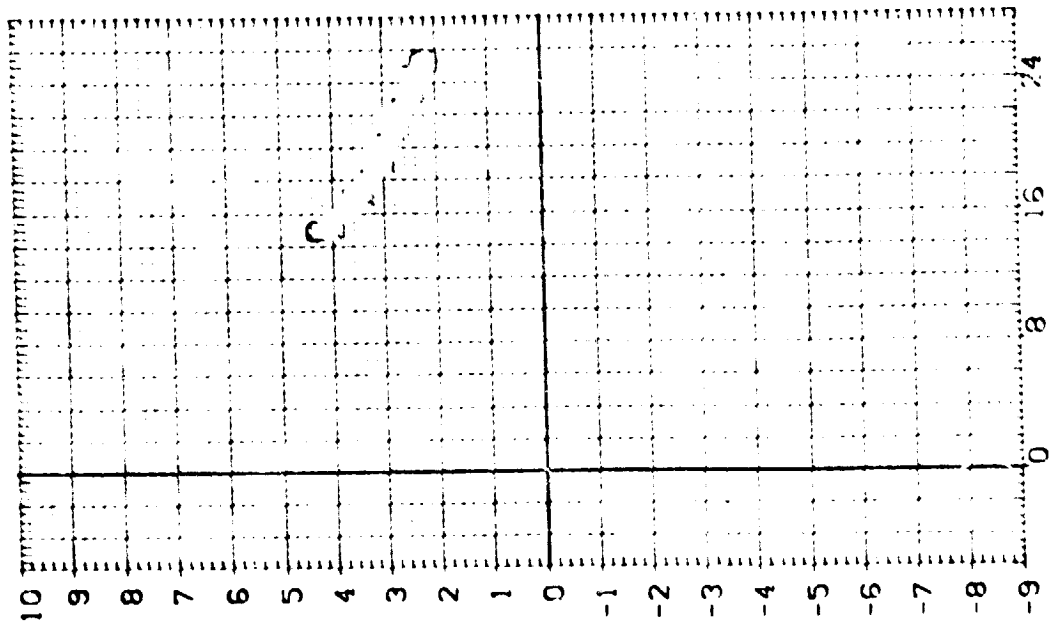
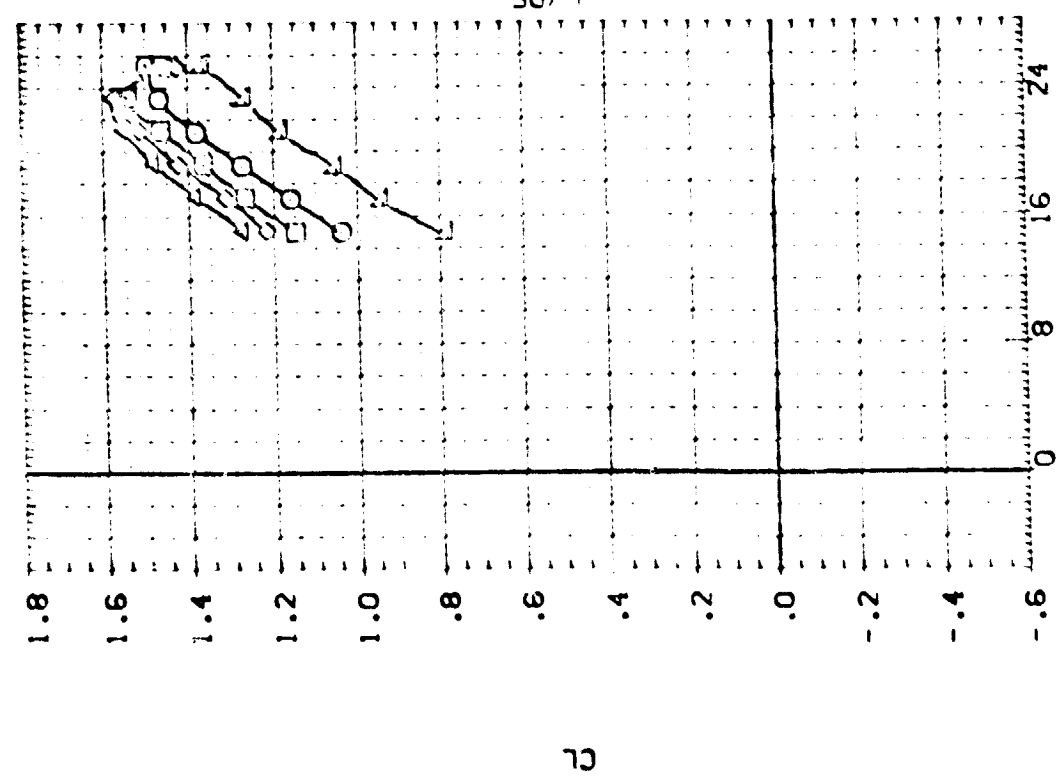
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0.000

9-FLAP  
-18.000  
-18.000  
-18.000  
-18.000  
-18.000  
-18.000

SPEC  
4.4119  
13.7273  
37.0000  
43.0000  
16.0000  
16.0000

REFERENCE INFORMATION  
50.000  
10.000  
10.000  
10.000  
10.000  
10.000

SCALE  
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0.000  
0.000  
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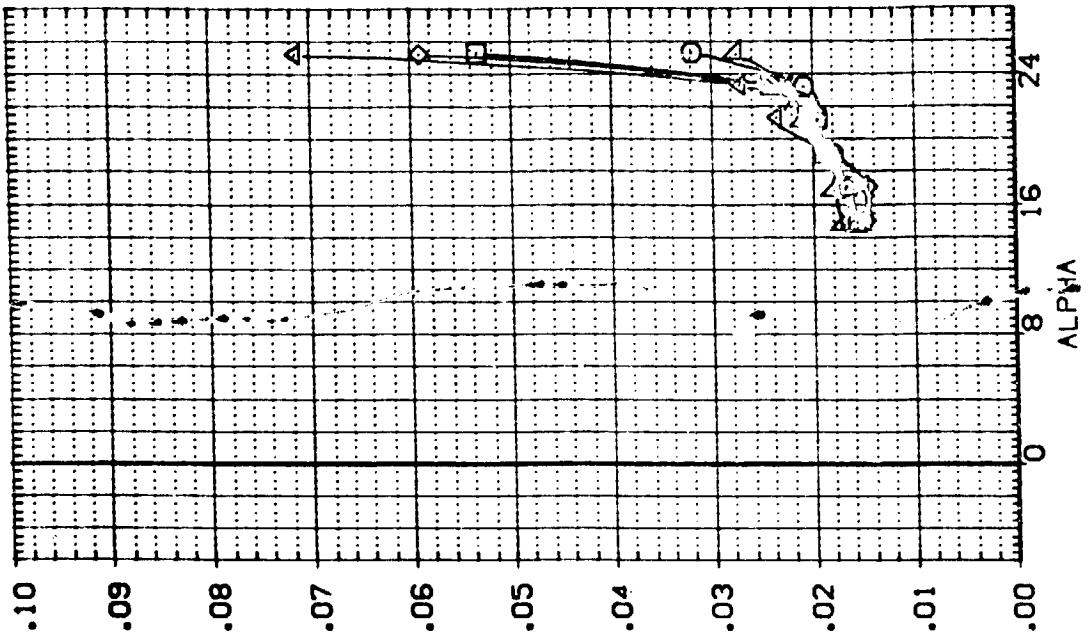
ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 240.0 INCHES

(A)MACH = 0.16





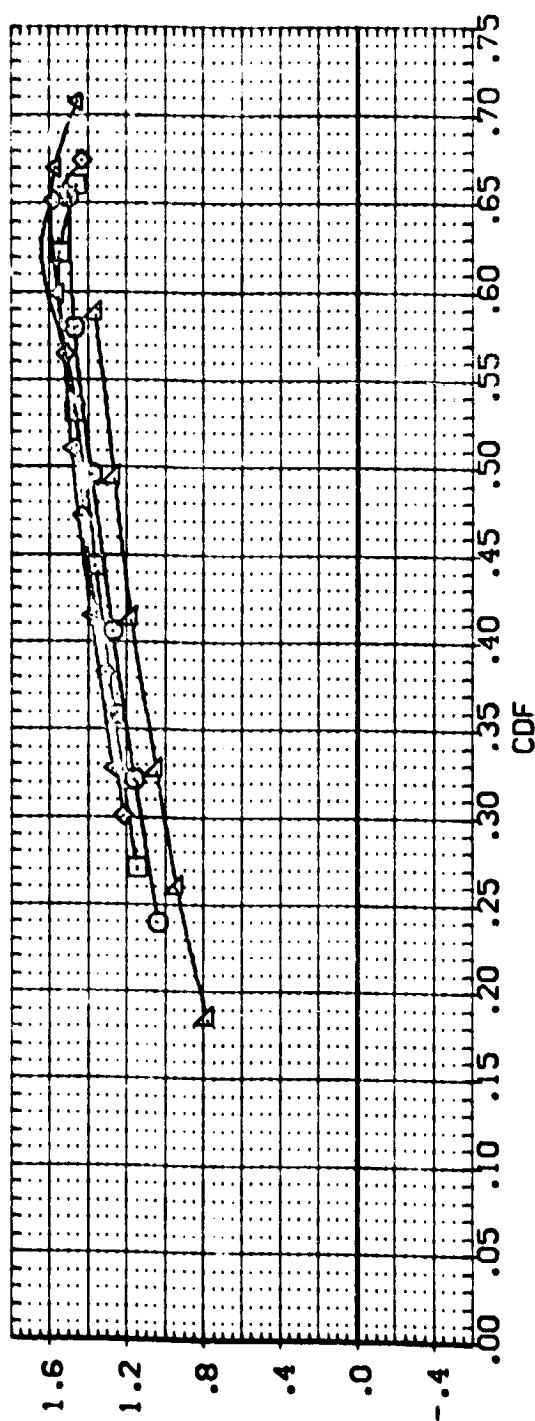
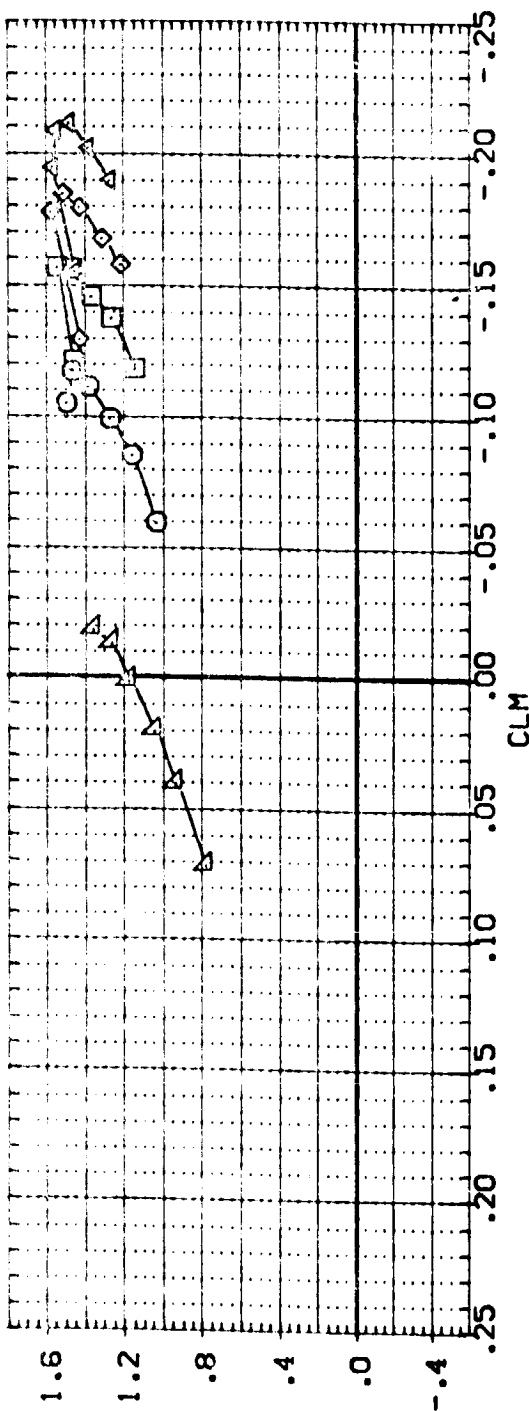
CP-POS	ELEVON	AIRLON	B-FLAP	REFERENCE INFORMATION
240.000	.000	.000	-18.000	SREF 4.1119 50.FT. INCHES
240.000	.000	.000	-18.000	BREF 19.2859 INCHES
240.000	5.000	.000	-13.000	BREF 37.9319 INCHES
240.000	10.000	.000	-13.000	XREF 43.5074 INCHES
240.000	15.000	.000	-18.000	YREF .0000 INCHES
240.000	-10.000	.000	-18.000	ZREF 16.2000 INCHES
				SCALE .0405



ELEVEN EFFECTIVENESS. ABES OFF, HEIGHT ABOVE GROUND= 240.0 INCHES

DATA SET SPEC. CONFIGURATION DESCRIPTION

DATA SET SPEC.	CONFIGURATION	DESCRIPTION	OR-FUS	ELEVON	AILON	STAYON	REF-ROTE	PROPORTION	SCALE
(ADN008)	14.001	14.005	14.005	14.005	14.005	14.005	14.005	14.005	14.005
(ADN009)	14.001	14.005	14.005	14.005	14.005	14.005	14.005	14.005	14.005
(ADN010)	14.001	14.005	14.005	14.005	14.005	14.005	14.005	14.005	14.005
(ADN011)	14.001	14.005	14.005	14.005	14.005	14.005	14.005	14.005	14.005
(ADN012)	14.001	14.005	14.005	14.005	14.005	14.005	14.005	14.005	14.005

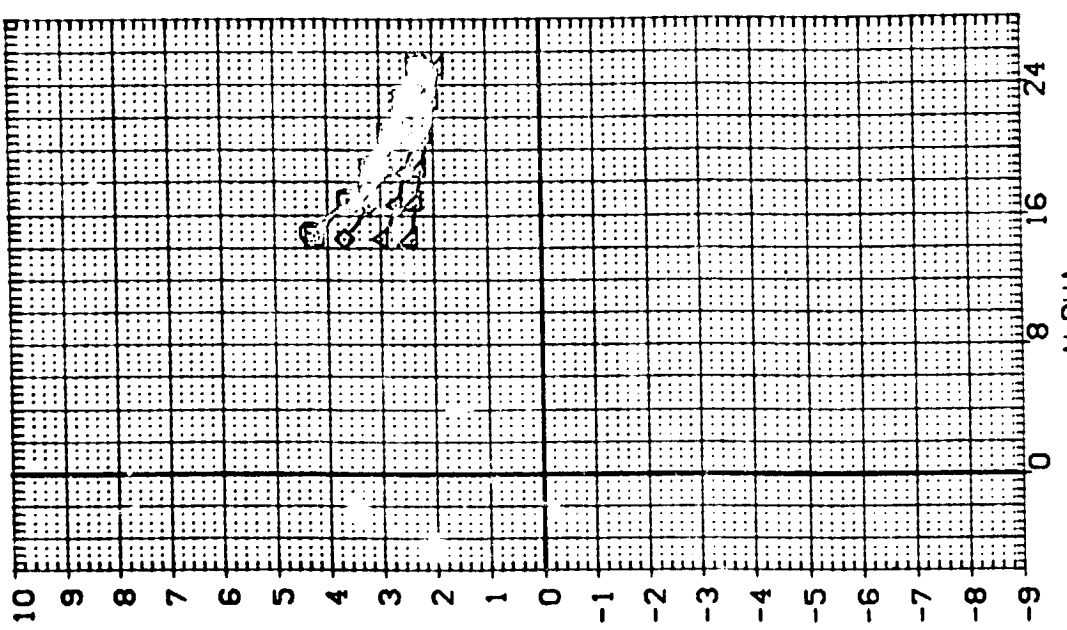
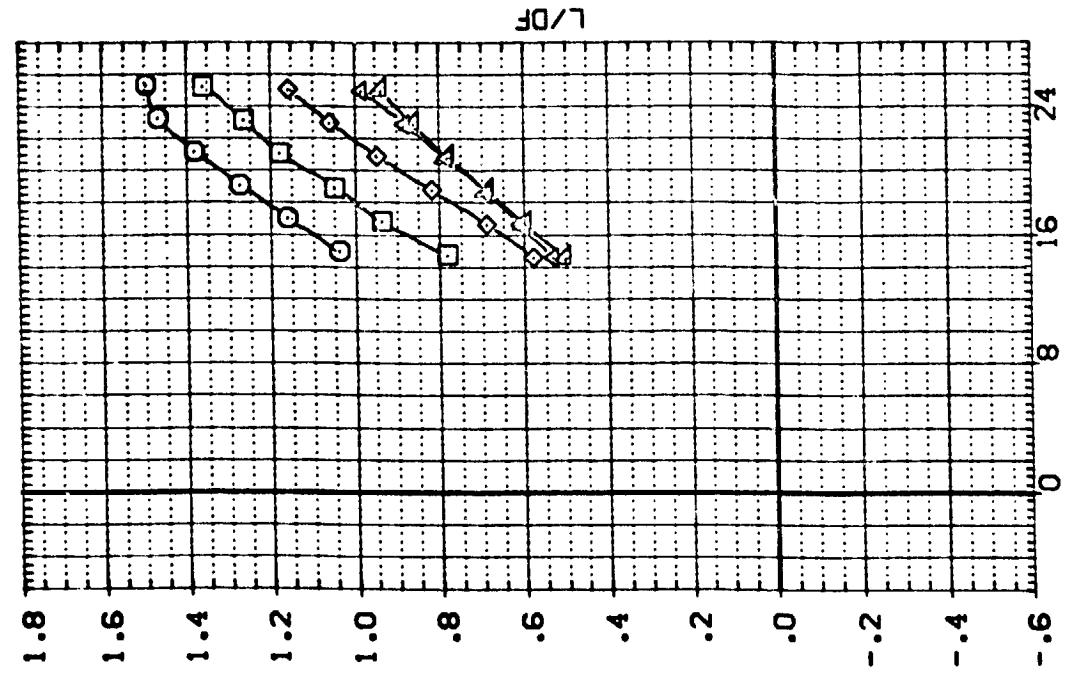


ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 240.0 INCHES

(A)MACH = .16

PAGE 160

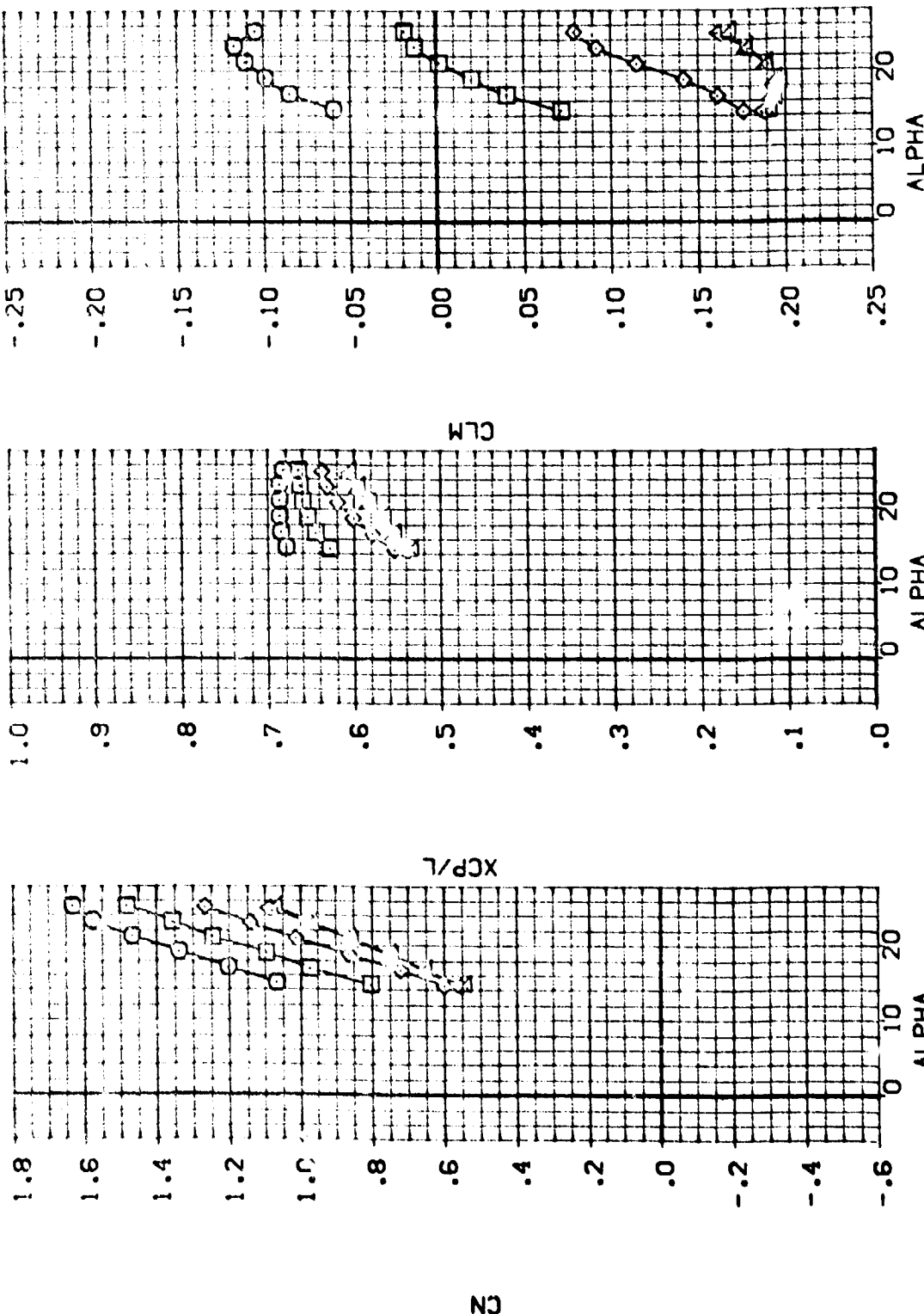
DATA SET SY-30L	CONFIGURATION DESCRIPTION	ELEVON	AIRSON	B-FLAP	REFERENCE INFORMATION
(ADN208)	NR.701.0405 CR8 B161507F IG1V87V0XG+GP	.000	.000	-18.000	SREF 4.4119 52.4119
(ADN212)	NR.701.0405 CR8 B161507F IG1V87E18V5XG+GP	-10.000	.000	-18.000	LREF 19.2553 19.2553
(ADN213)	NR.701.0405 CR8 B161507F IG1V87E18V5XG+GP	-20.000	.000	-18.000	BREF 37.0343 37.0343
(ADN214)	NR.701.0405 CR8 B161507F IG1V87E18V5XG+GP	-30.000	.000	-18.000	XREF 43.5274 43.5274
(ADN215)	NR.701.0405 CR8 B161507F IG1V87E18V5XG+GP	-40.000	.000	-18.000	YREF 16.2000 16.2000
					SCALE .0405



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 240.0 INCHES

(M)MACH = .16

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	CPUS	ELEVATION	ALTITUDE	B.FLIP	REFERENCE INFORMATION	SCALE
(A2020)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	4.4119
(A2021)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2022)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2023)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2024)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2025)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2026)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2027)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2028)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2029)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2030)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2031)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2032)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2033)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2034)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2035)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2036)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2037)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2038)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2039)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2040)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2041)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2042)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2043)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2044)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2045)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2046)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2047)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2048)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2049)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2050)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2051)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2052)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2053)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2054)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2055)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2056)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2057)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2058)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2059)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2060)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2061)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2062)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2063)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2064)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2065)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2066)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2067)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2068)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2069)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2070)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2071)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2072)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2073)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2074)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2075)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2076)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2077)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2078)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2079)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2080)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2081)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2082)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2083)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2084)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2085)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2086)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2087)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2088)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2089)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2090)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2091)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2092)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2093)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2094)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2095)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2096)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2097)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2098)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000
(A2099)	18.70	0.00	0.00	0.00	0.00	18.000	LPAT	1.0000
(A2100)	18.70	0.00	0.00	0.00	0.00	18.000	SPOT	1.0000

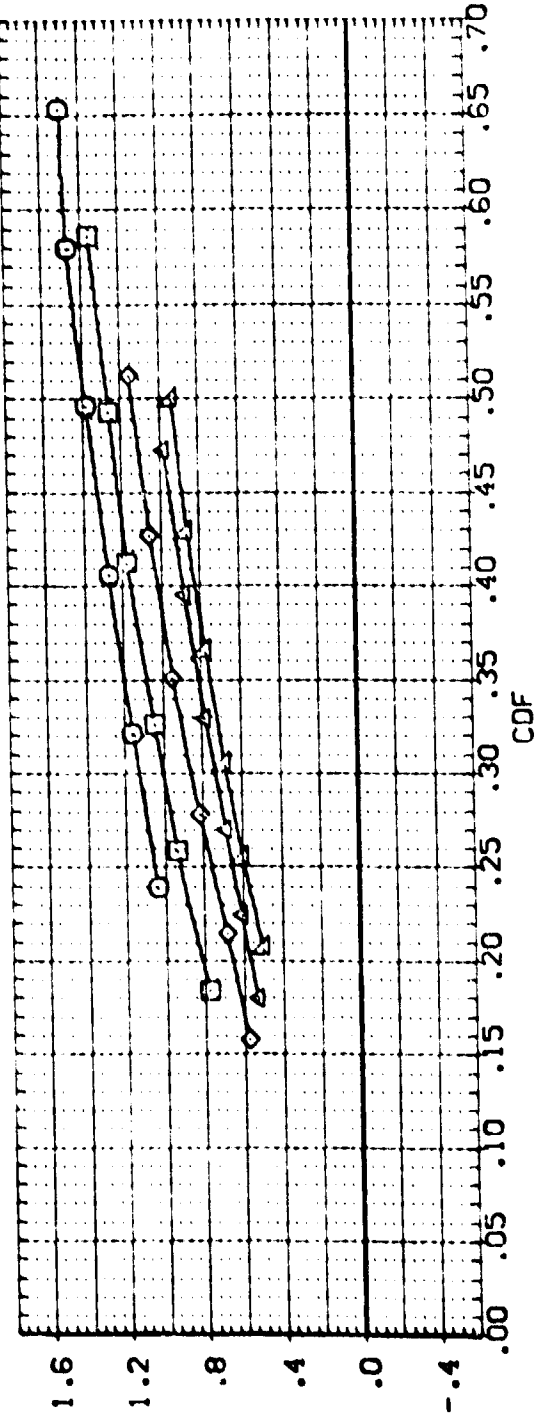
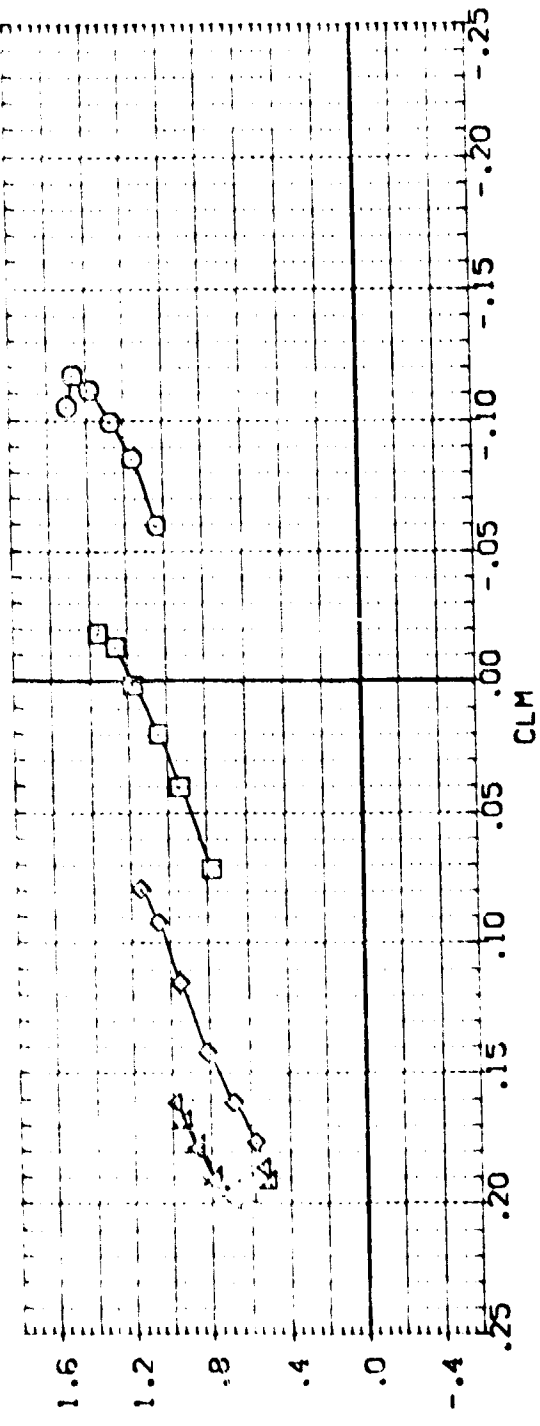


ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 240.0 INCHES

(A)MACH = .16



DATA SET	5000	10000	15000	20000	25000	30000	35000	40000	45000	50000	55000	60000	65000	70000	75000	80000	85000	90000	95000	100000
1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

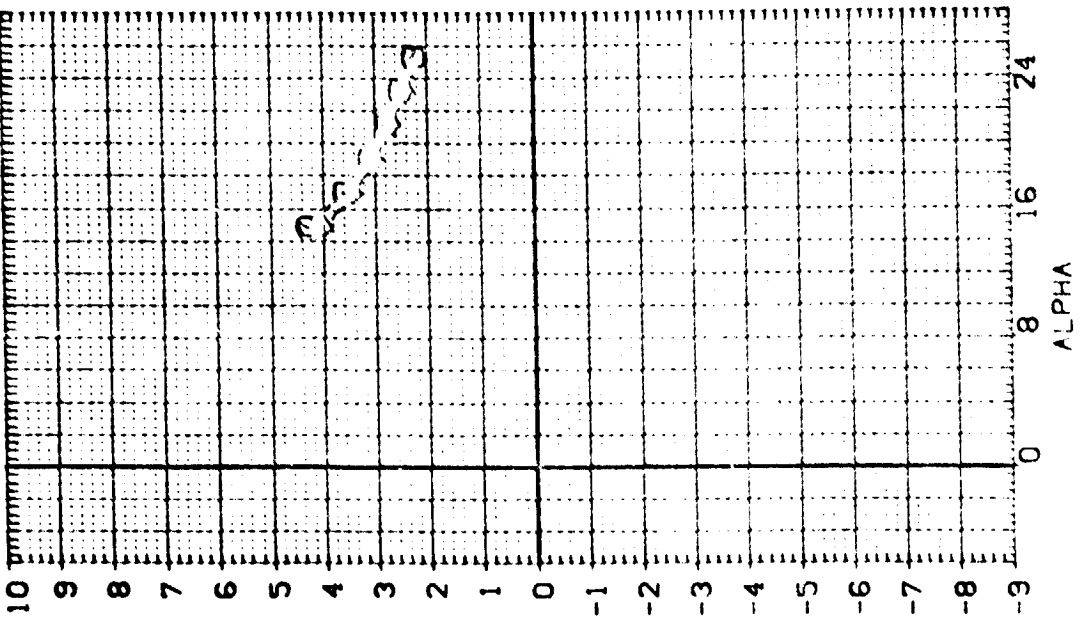
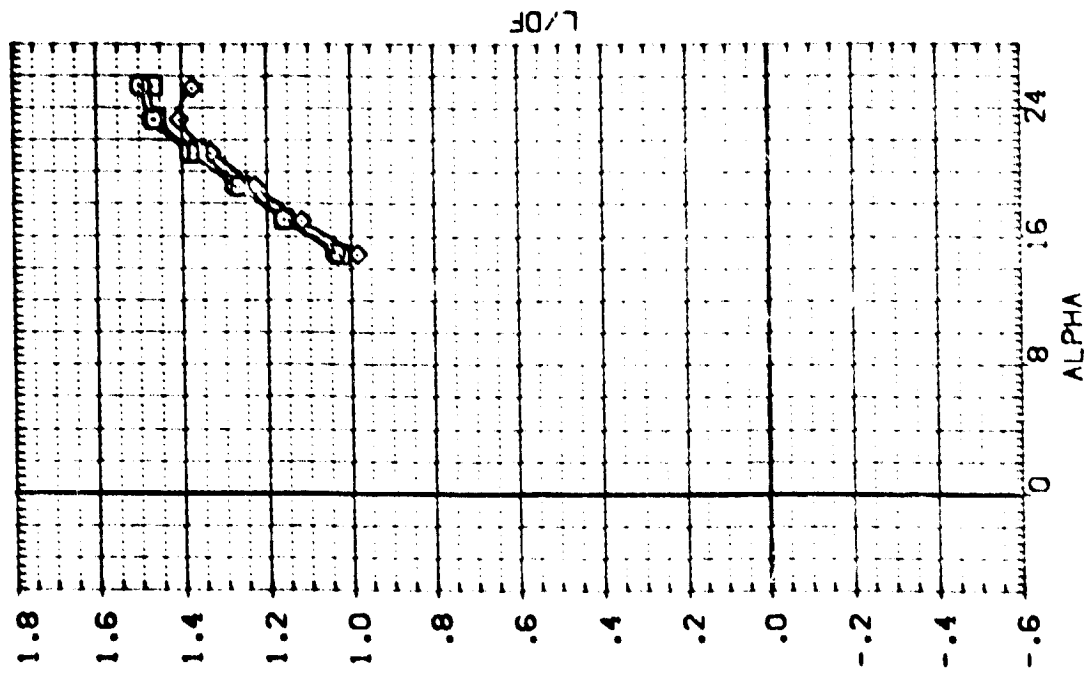


ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 240.0 INCHES

CAD MACH = .16

111111

DATA SET SYMBOL	CONFIDURATION	DESCRIPTION	ELEVATION	ALPHAD	9. PLAP	REFERENCE INFORMATION
(ADQ28)	18.70	0405 DBB 9.15507F 15.187853-4P	000	000	-18.000	SPRT 1.4119 50.17
(ADQ25)	18.70	0405 DBB 8.95507F 15.187853-4P	000	5.000	-18.000	UPRT 19.2339 10.05
(ADQ27)	18.70	0405 DBB 9.15507F 15.187853-4P	000	15.000	-18.000	UPRT 37.5013 10.05
						UPRT 43.5874 10.05
						UPRT 16.2000 10.05
						UPRT 16.2000 10.05
						SCALE



AILERON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND=240.0 INCHES

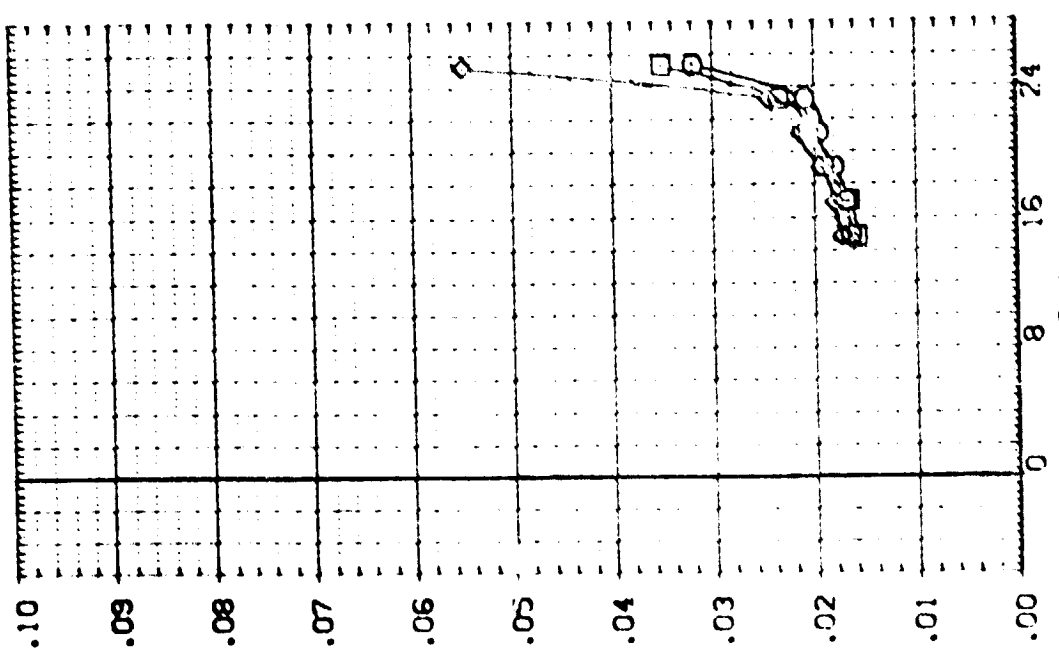
CADMAC = .15





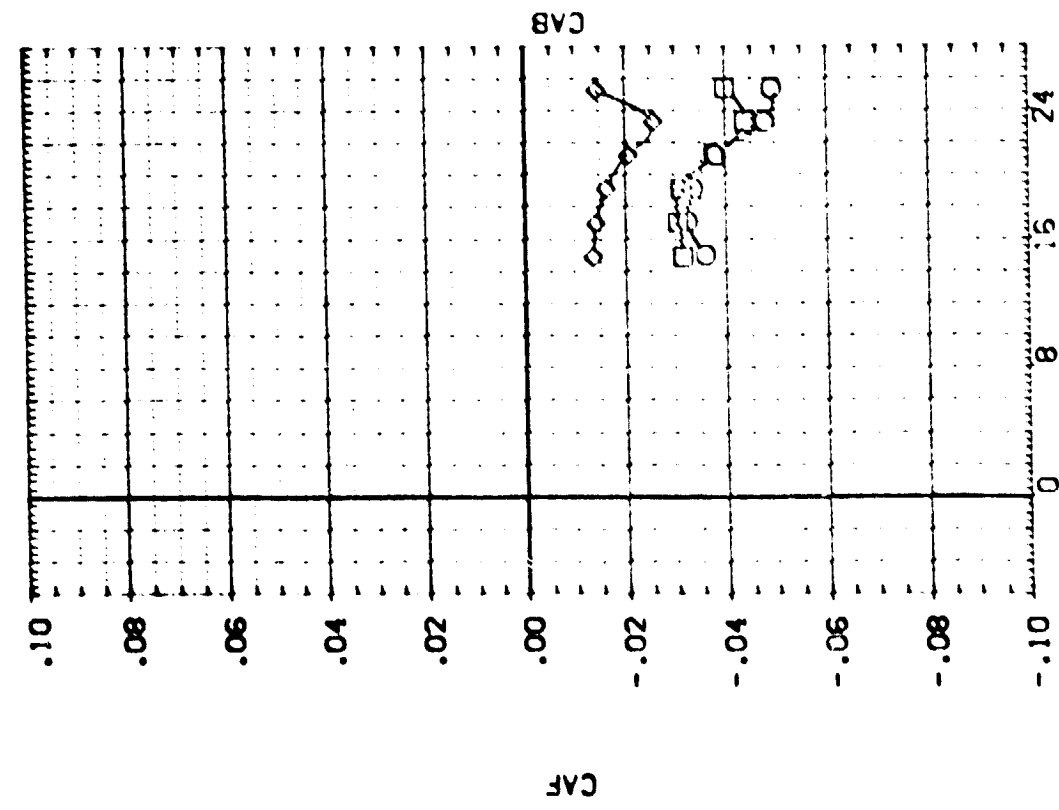
DATA SET 5000  
 (AD-0000)  
 (AD-0010)  
 (AD-0020)

REFERENCE INFORMATION  
 REF 1.4119 50.00  
 REF 19.2223 10.00  
 REF 17.5343 10.00  
 REF 43.5374 10.00  
 REF 1000 10.00  
 REF 16.2400 10.00  
 REF 16.2400 10.00



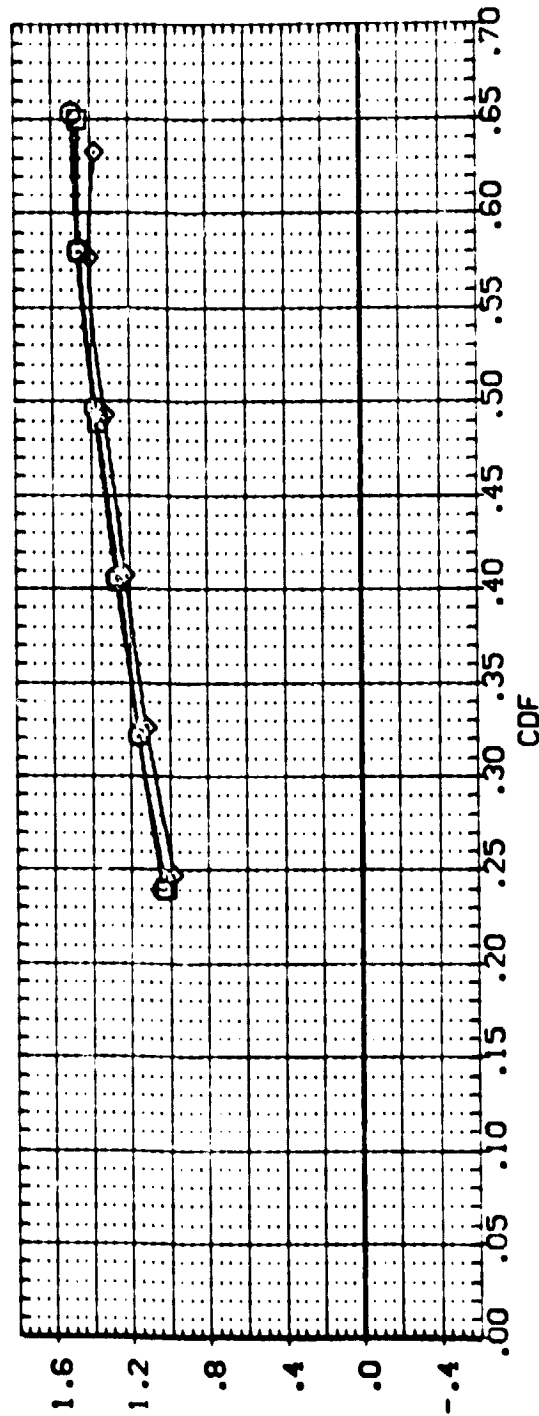
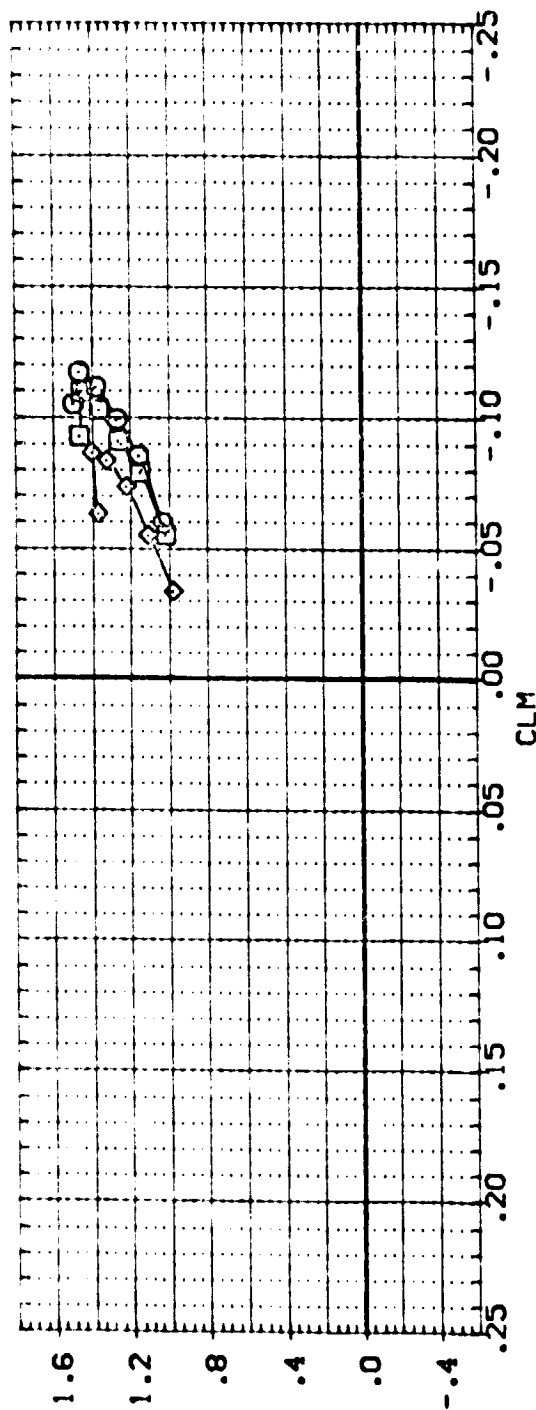
DATA SET 5000  
 (AD-0000)  
 (AD-0010)  
 (AD-0020)

REFERENCE INFORMATION  
 REF 1.4119 50.00  
 REF 19.2223 10.00  
 REF 17.5343 10.00  
 REF 43.5374 10.00  
 REF 1000 10.00  
 REF 16.2400 10.00  
 REF 16.2400 10.00



AILERON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND=240.0 INCHES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-HLS	ELEVON	AILSON	B-FLAP	REFERENCE INFORMATION	SOLET
(AD0208)	10.001 0405 0208 B16050711610871080405	240.000	.000	.000	-18.000	SREF	4.4119
(AD0216)	10.001 0405 0208 B16050711610871080405	240.000	.000	.000	-18.000	IREF	19.2503
(AD0217)	10.001 0405 0208 B16050711610871080405	240.000	.000	.000	-18.000	XREF	37.9013
						YREF	43.5971
						ZREF	.0000
						SCALE	16.2000
							.0405



AILERON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND=240.0 INCHES

(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (BDQ208) NR.701.0405 088 B16CS07F1G1V87VSV3+GP  
 (BDQ216) NR.701.0405 088 B16CS07F1G1V87E16VSV3+GP  
 (BDQ217) NR.701.0405 088 B16CS07F1G1V87E1SVSV3+GP

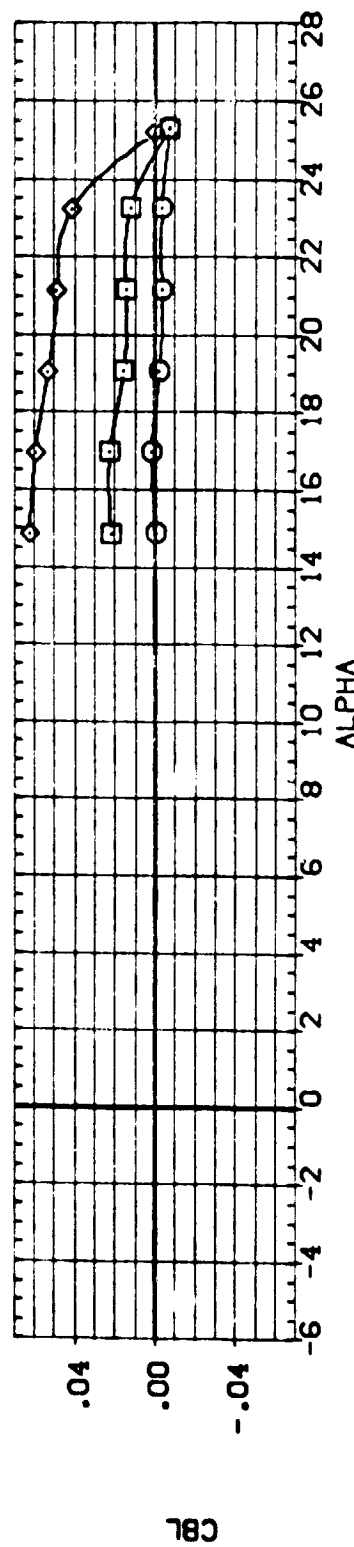
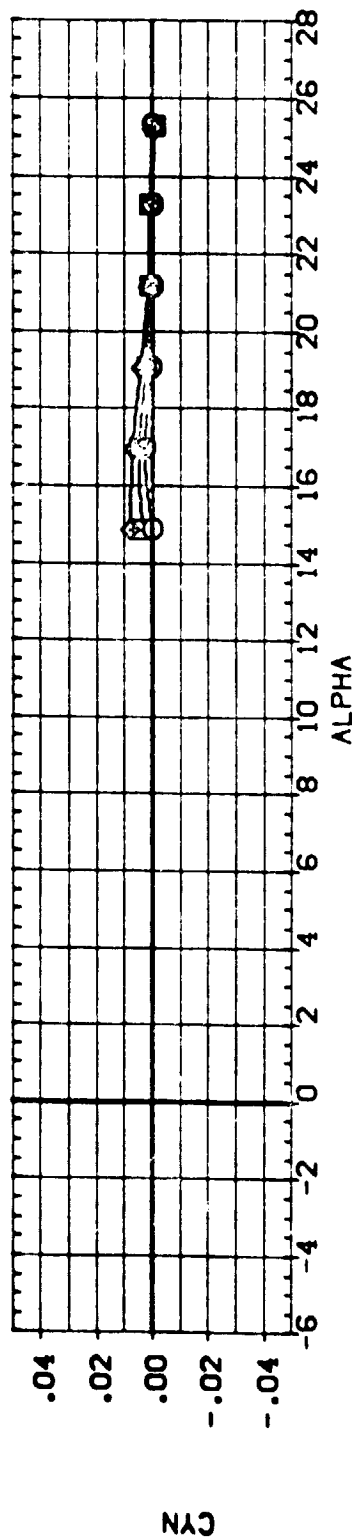
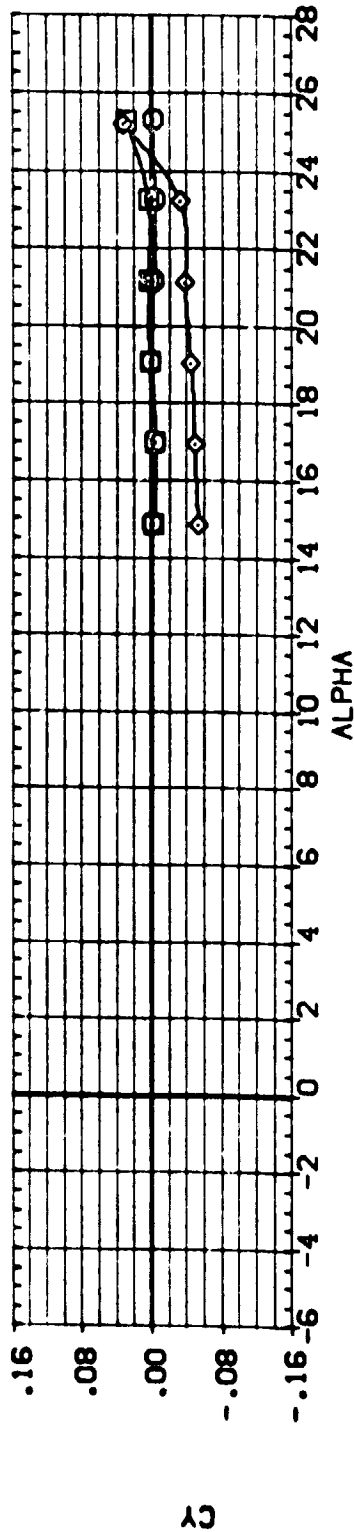
GP-POS 240.000  
 240.000  
 240.000

ELEVON .000  
 .000  
 .000

AILERON .000  
 5.000  
 15.000

B-FLAP -18.000  
 -18.000  
 -18.000

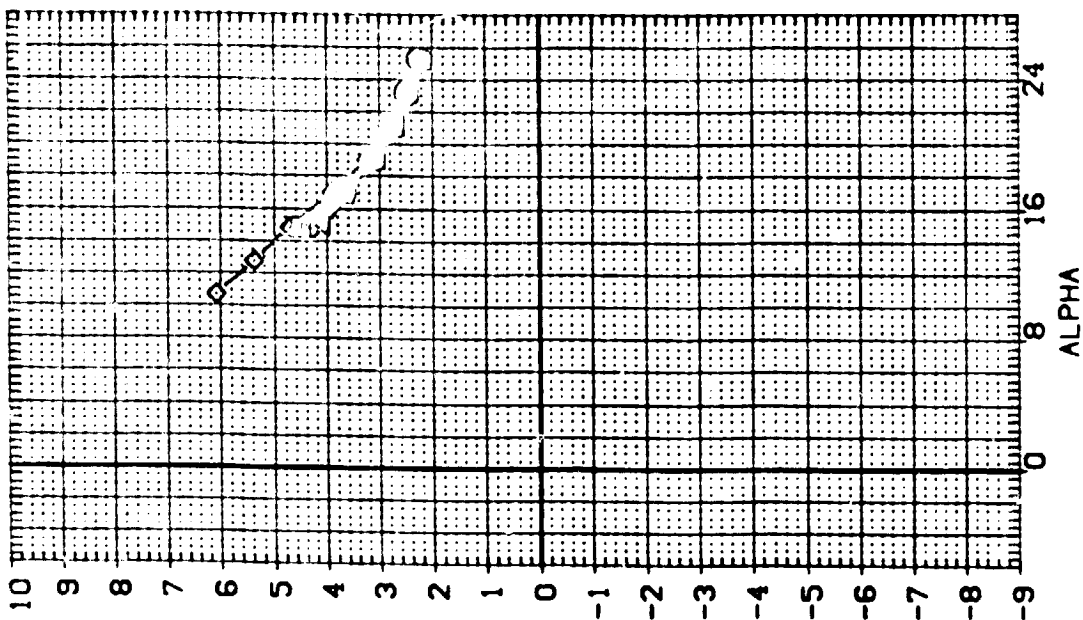
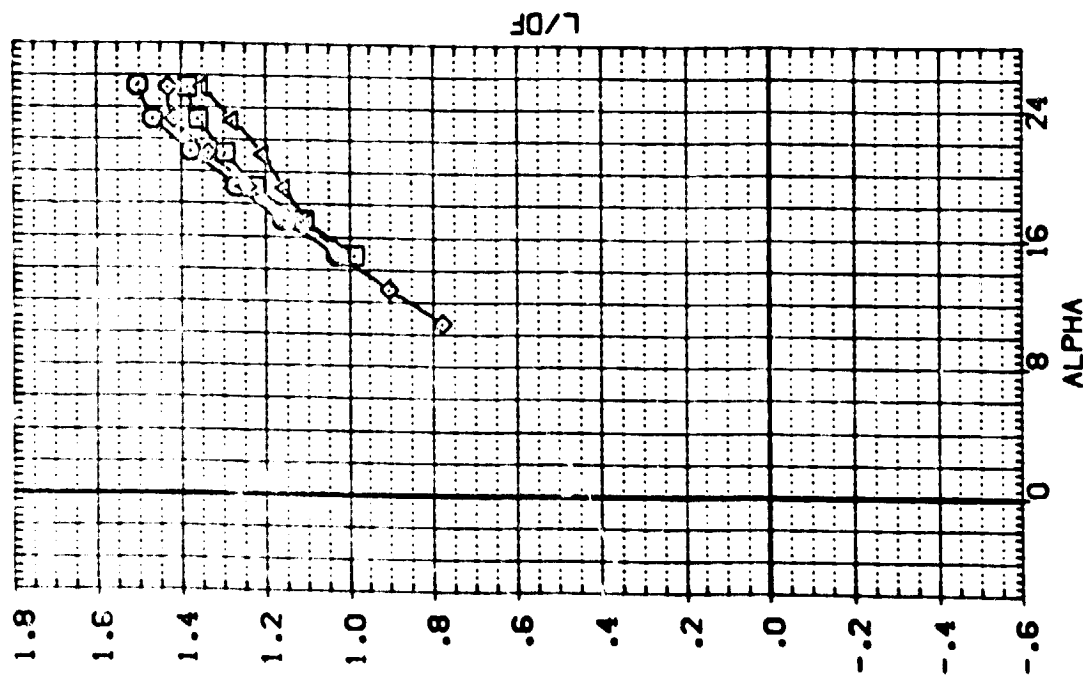
REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 UREF 19.2058 INCHES  
 XREF 37.5319 INCHES  
 YREF 43.5874 INCHES  
 ZREF .0200 INCHES  
 SCALE 16.2000 INCHES  
 SCALE .0405



AILERON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND=240.0 INCHES

(A)MACH = .16

8-FLAP	NAVAL	LIP	REFERENCE INFORMATION	92-FT 500000S
240.000	.000	4.000	4.4119	INCHES
240.000	.000	4.000	17.0349	INCHES
240.000	.000	4.000	43.5371	INCHES
240.000	.000	4.000	100.0000	INCHES
240.000	.000	4.000	15.2000	SCALE
			15.0405	SCALE

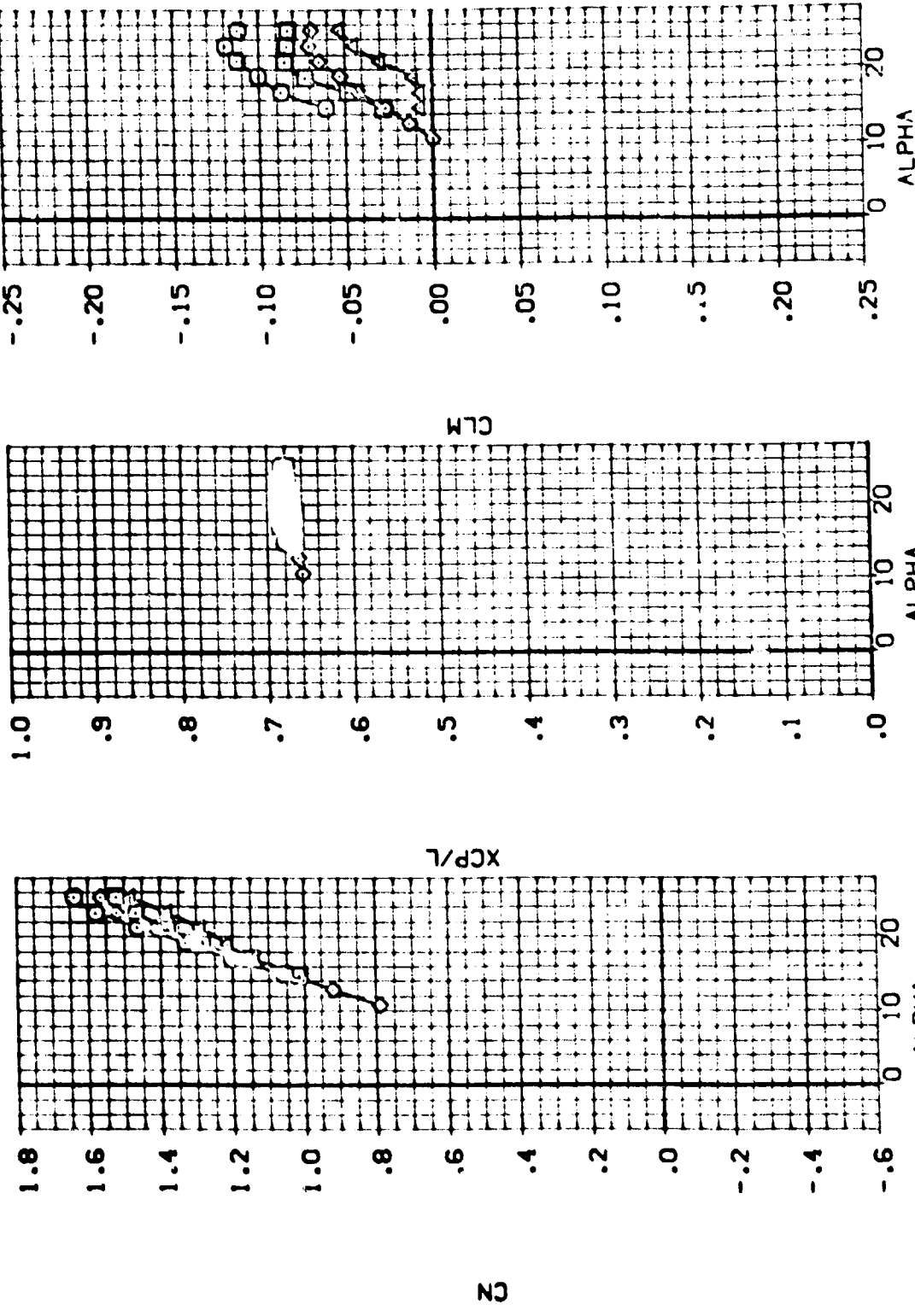


EFFECT OF ABES, HEIGHT ABOVE GROUND = 240.0 INCHES

$$CAJMACH = .16$$

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CP+CS	9.FLAP	MACH	LIP	REFERENCE INFORMATION	50.FT.
(AD-218)	NR.701.0405 098 8165307E 1612487V53+CP	240.000	-18.000	.000	4.000	SREF	4.1119
(AD-221)	NR.701.0405 098 8165307E 1612487V53+CP	240.000	-18.000	.000	4.000	LREF	19.2933
(AD-236)	NR.701.0405 098 8165307E 1612487V53+CP	240.000	-18.000	.000	4.000	BREF	37.5349
(AD-206)	NR.701.0405 098 8165307E 1612487V53+CP	240.000	-18.000	.000	4.000	YREF	43.5574
(AD-006)	NR.701.0405 098 8165307E 1612487V53+CP	240.000	-18.000	.000	4.000	ZREF	16.2000
						SCALE	.0405
						SCALE	.0405



EFFECT OF ABES, HEIGHT ABOVE GROUND = 240.0 INCHES

(A)MACH = .16

### DESCRIPTION

(A19218)	4R: 701: 0405	008	B16C507F	G124875509+G2
(A5221)	4R: 701: 0405	020	91E5507F	J3613737370+G2
(A5235)	4R: 701: 0405	028	31E5507F	J5512575310+G2
(A5236)	4R: 701: 0405	028	B16C507F	J70124875510+G2

40,000	13,000	40,000	13,000
40,000	13,000	40,000	13,000
40,000	13,000	40,000	13,000
40,000	13,000	40,000	13,000

888  
888

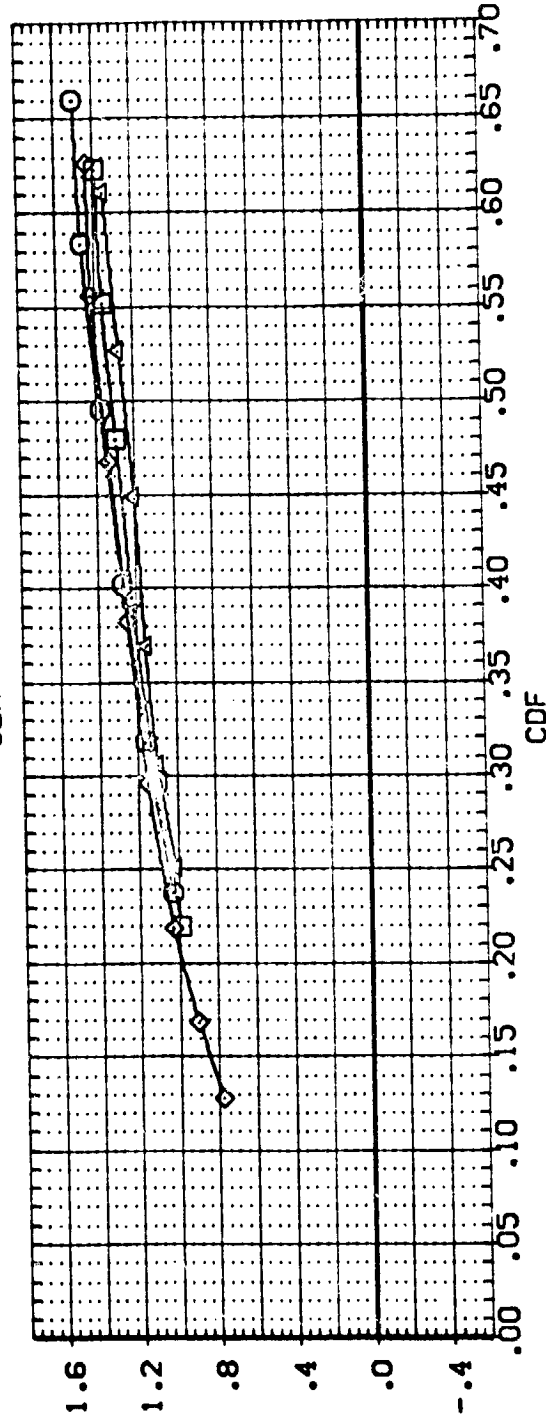
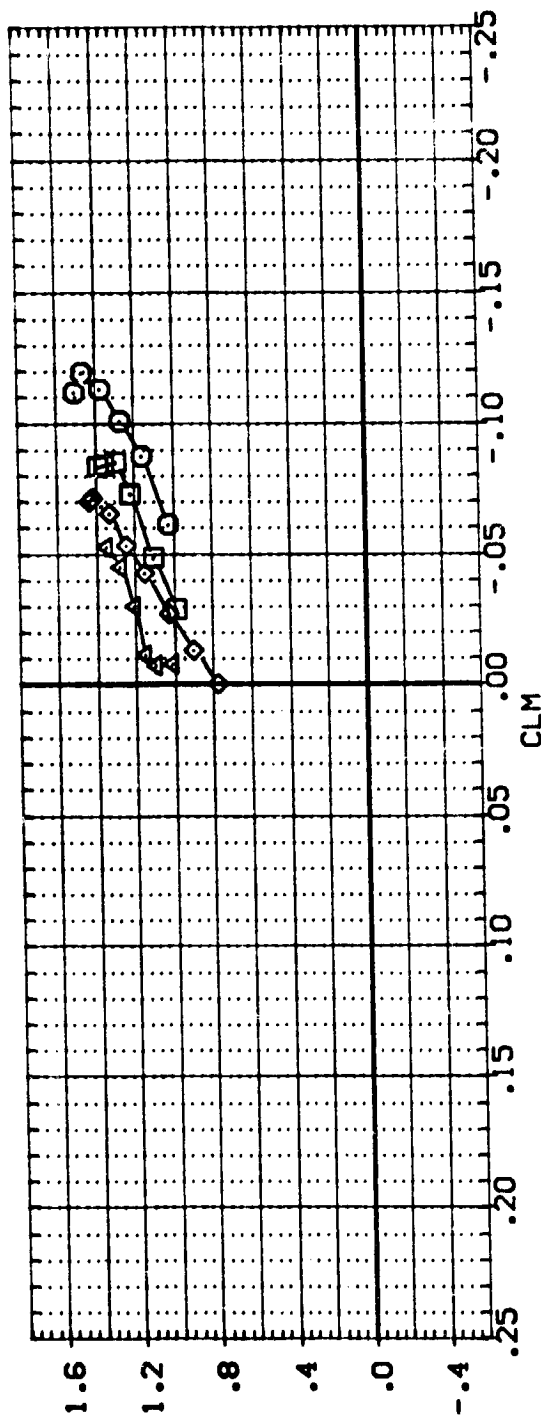
4119	9149
131333	9149
371319	9149
431574	9149
600	9149

5555  
4444  
3333  
2222  
1111



**CAMACH = .16**

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	9-FLAP	NACAL	LIP	REFERENCE INFORMATION	50-FT. INCHES
(AD218)	NR.701.0405 CR8 B16CS07F1G12487V509+GP	240.000	-18.000	.000	4.000	SREF 4.4119	INCHES
(AD221)	NR.701.0405 CR8 B16CS07F1J3612487V5X10+GP	240.000	-18.000	.000	4.000	LREF 19.2339	INCHES
(AD226)	NR.701.0405 CR8 B16CS07F1J5167V5X10+GP	240.000	-18.000	.000	4.000	BREF 37.9319	INCHES
(AD205)	NR.701.0405 CR8 B16CS07F1J7612487V5X10+GP	240.000	-18.000	.000	4.000	XREF 43.5574	INCHES
						YREF .0000	INCHES
						ZREF 16.2000	INCHES
						SCALE .0405	SCALE



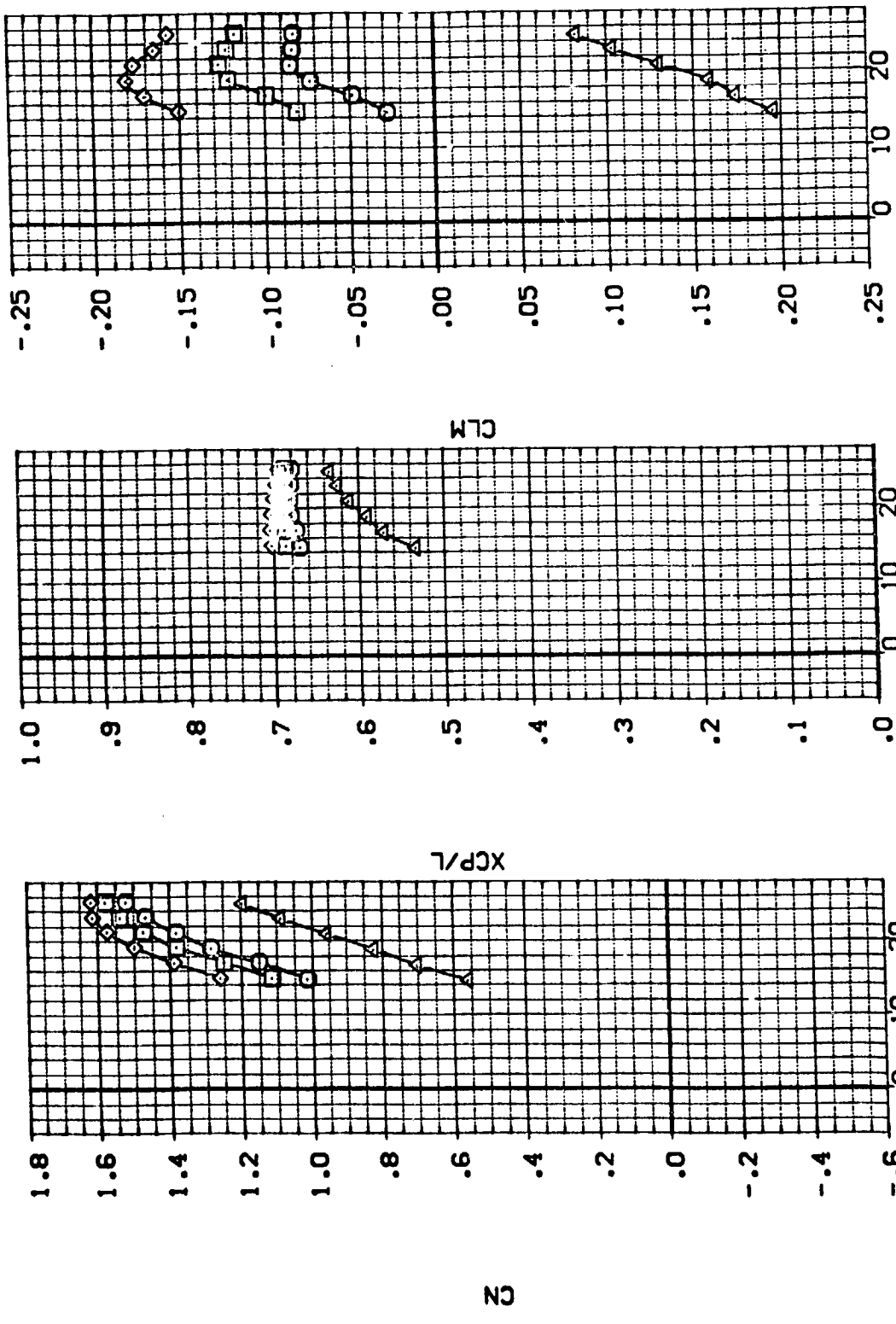
EFFECT OF ABES, HEIGHT ABOVE GROUND = 240.0 INCHES

(A)MACH = .16





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP FOR	ELEVON	NACAL	LIP	REFERENCE INFORMATION
(ADN221)	N6.701.0405 DB8 B16C507F 1331 2487E18VX10+GP	240.000	.000	.000	4.000	SREF 4.419 SQ.FT.
(ADN222)	N6.701.0405 DB8 B16C507F 1331 2487E18VX10+GP	240.000	5.000	.000	4.000	LREF 19.735.9 INC-ES
(ADN224)	N6.701.0405 DB8 B16C507F 1331 2487E18VX10+GP	240.000	15.000	.000	4.000	BREF 37.934.9 INC-ES
(ADN225)	N6.701.0405 DB8 B16C507F 1331 2487E18VX10+GP	240.000	-20.000	.000	4.000	YREF 43.557.4 INC-ES
						YREF 16.200.0 INC-ES
						ZREF 16.200.0 INC-ES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=240.0 INCHES  
 (A)MACH = .16  
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ADN221) □ 81.701.0405 088 8161.307F 133612.87/5X10+GP

(ADN222) □ 81.701.0405 083 8161.307F 133612.87/5X10+GP

(ADN223) □ 81.701.0405 083 8161.307F 133612.87/5X10+GP

(ADN225) □ 81.701.0405 088 8161.307F 133612.87/5X10+GP

GP-RUS ELEVON NACVAL LIP REFERENCE INFORMATION

240.000 4.000 4.119 50.FT.

240.000 4.000 19.2339 INCHES

240.000 4.000 37.9349 INCHES

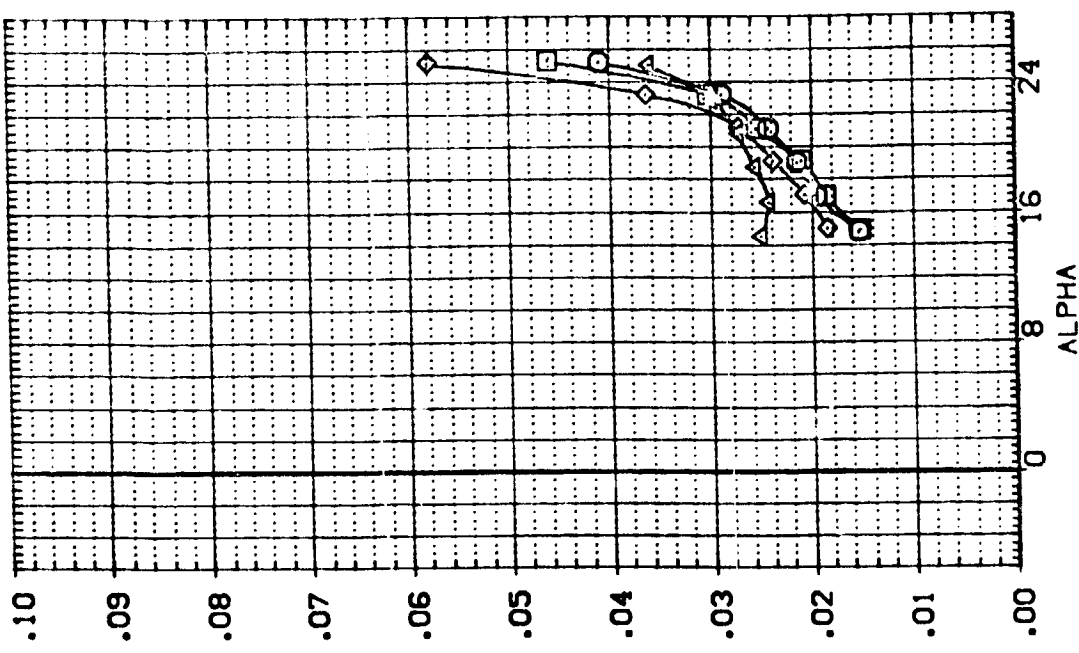
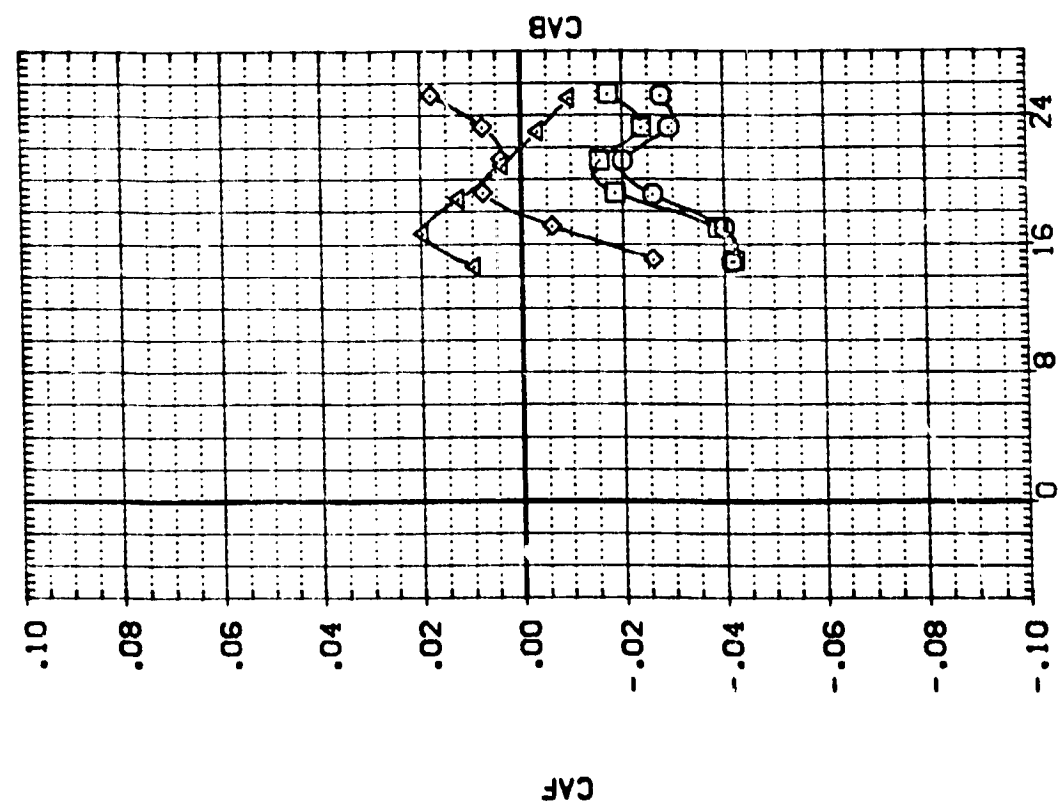
240.000 4.000 43.5574 INCHES

240.000 4.000 16.2000 INCHES

240.000 4.000 16.0405 INCHES

240.000 4.000 16.0405 INCHES

240.000 4.000 16.0405 INCHES

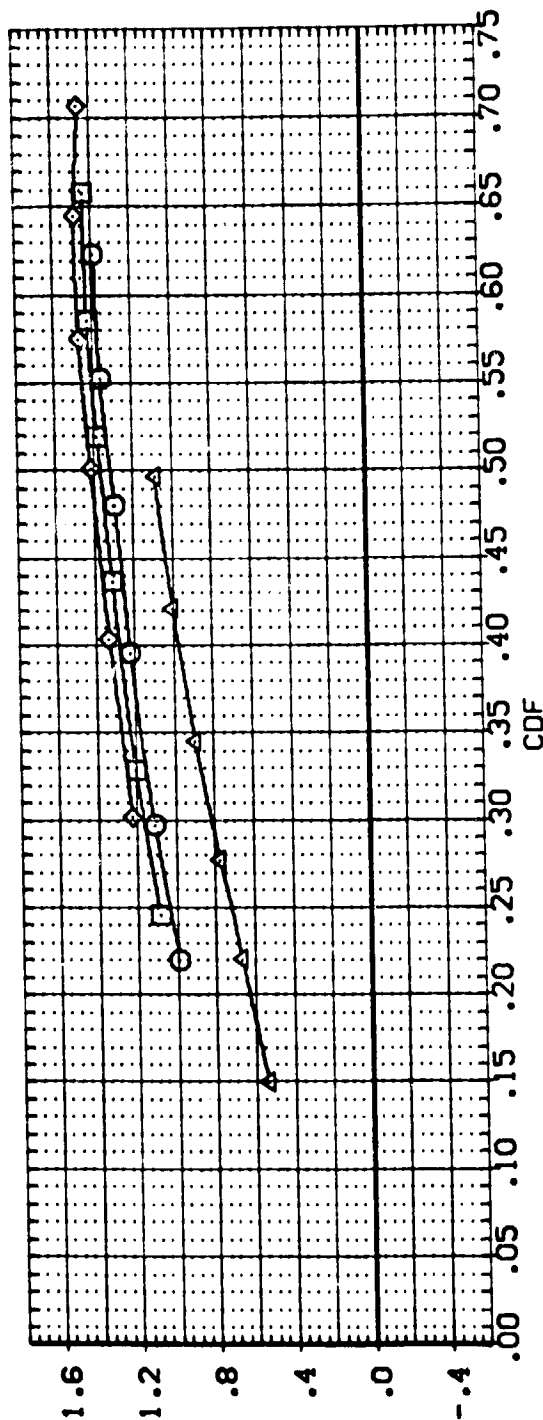
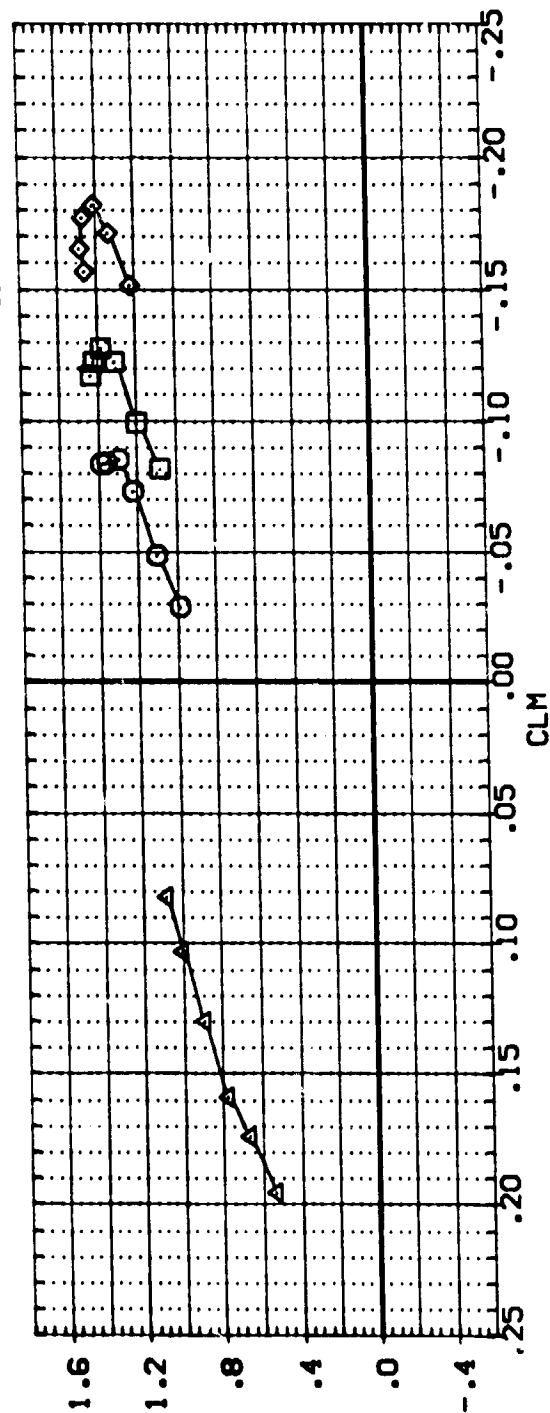


ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=240.0 INCHES

(A)MACH = .16

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVL	LIP	REFERENCE INFORMATION
(AD-021)	NR.701.0405 088 B16C507F 143012487A-3X10+GP	240.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
(AD-022)	NR.701.0405 088 B16C507F 143012487E 15-3X10+GP	240.000	5.000	.000	4.000	UREF 19.2559 IN-ES
(AD-023)	NR.701.0405 088 B16C507F 143012487E 16-3X10+GP	240.000	15.000	.000	4.000	BREF 37.5349 IN-ES
(AD-024)	NR.701.0405 088 B16C507F 143012487E 18V5X10+GP	240.000	-20.000	.000	4.000	XTGP 43.5974 IN-ES
(AD-025)	NR.701.0405 088 B16C507F 143012487E 18V5X10+GP	240.000				YREF .0000 IN-ES
						ZREF 16.2000 IN-ES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=240.0 INCHES

(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AD-257) NR.701.0405 DB8 8165507F 175612487E 18VX10+GP

(AD-258) NR.701.0405 DB8 8165507F 175612487E 18VX10+GP

(AD-259) NR.701.0405 DB8 8165507F 175612487E 18VX10+GP

(AD-260) NR.701.0405 DB8 8165507F 175612487E 18VX10+GP

GP-POS ELEVON MACAL LIP REFERENCE INFORMATION

240.000 .000 4.000 SREF 4.4119 50.FT.

240.000 5.000 4.000 UREF 19.2399 100.FT.

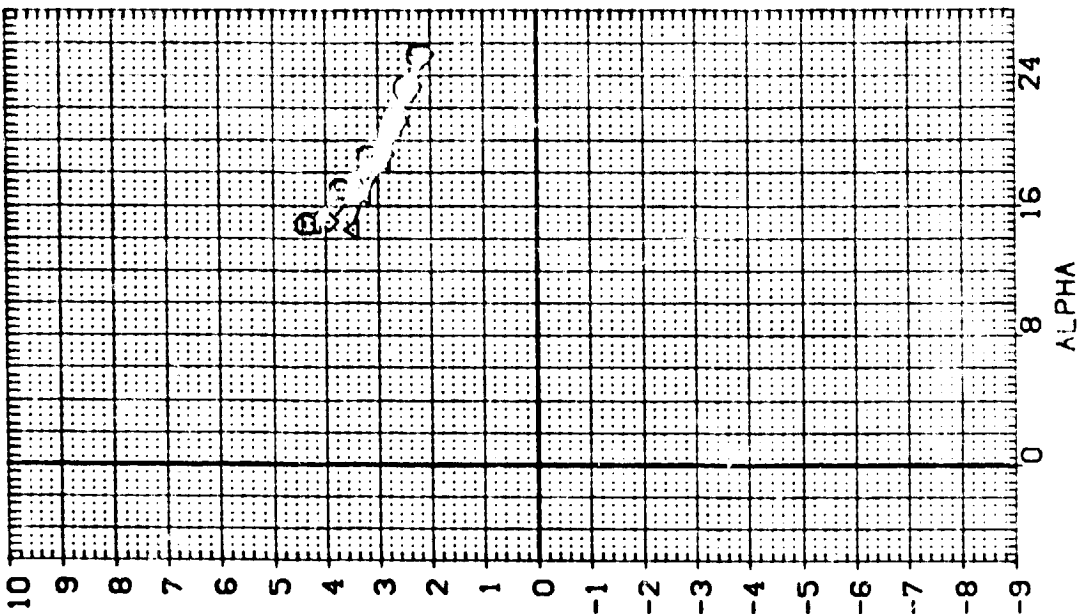
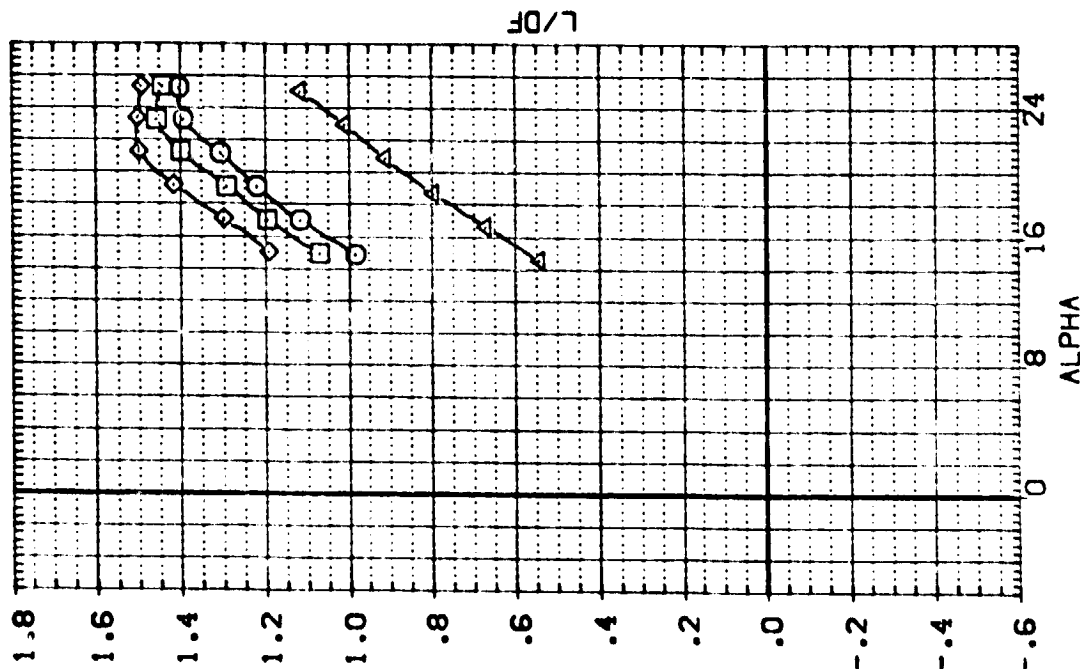
240.000 15.000 4.000 BREF 37.5743 150.FT.

240.000 -20.000 4.000 XREF 43.5074 175.FT.

YREF .0000 100.FT.

ZREF 16.2000 100.FT.

SCALE .0405

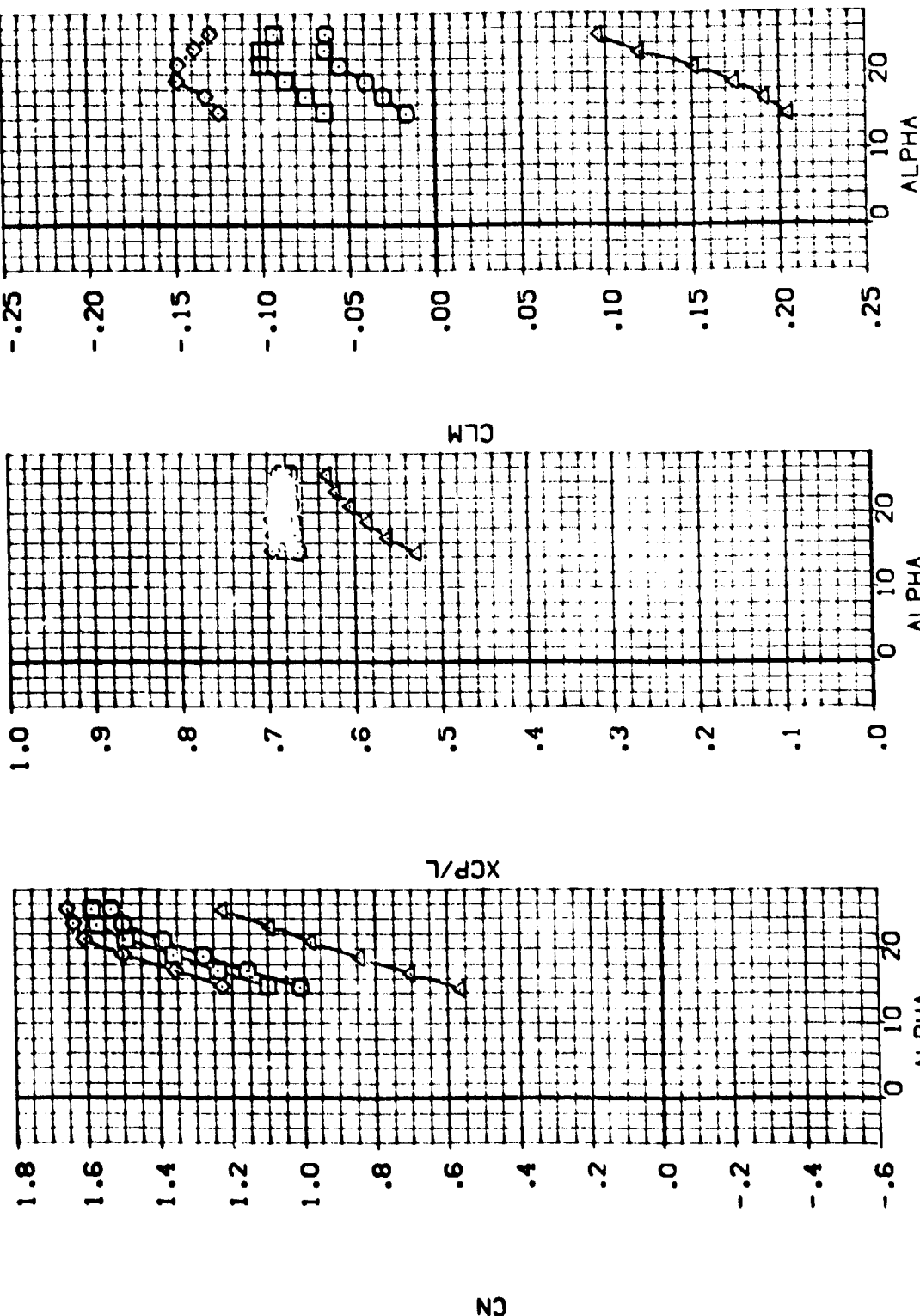


ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=240.0 INCHES

(A)MACH = .16

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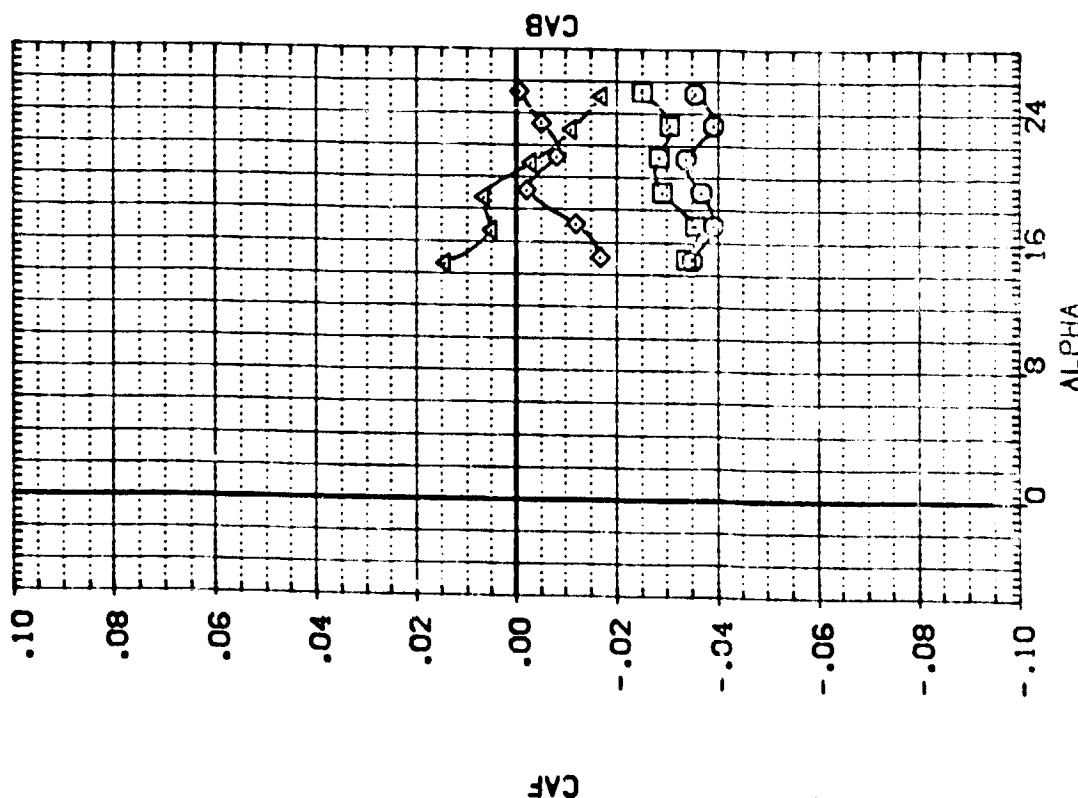
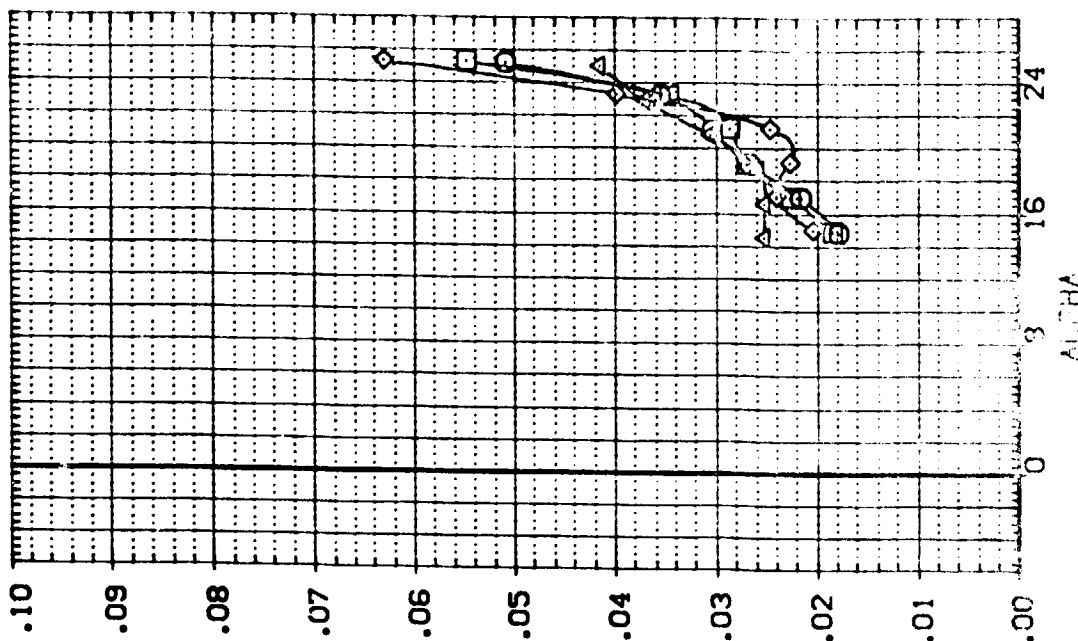
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACA	LIP	REFERENCE INFORMATION
(AD-237)	NR-701.0405 038 B16307F 175312V87VX10+GP	240.000	.000	.000	4.000	SREF 4.4119 50.FT.
(AD-238)	NR-701.0405 038 B16307F 175312V87VX10+GP	240.000	.000	.000	4.000	LREF 19.2539 10.FT.
(AD-239)	NR-701.0405 038 B16307F 175312V87VX10+GP	240.000	.000	.000	4.000	BREF 37.5043 10.FT.
(AD-240)	NR-701.0405 038 B16307F 175312V87VX10+GP	240.000	.000	.000	4.000	YREF 43.5574 10.FT.
(AD-238)	NR-701.0405 038 B16307F 175312V87VX10+GP	240.000	-20.000	.000	4.000	ZREF 16.2000 10.FT.
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=240.0 INCHES  
 (A)MACH = .16  
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GP-POS	ELEVON	NAC/L	LIP	REFERENCE INFORMATION
240.000	.000	.000	4.000	SREF 4.4119 50.FT.
240.000	.000	.000	4.000	LREF 19.2598 IN-ES
240.000	5.000	.000	4.000	SREF 37.9349 IN-ES
240.000	15.000	.000	4.000	XREF 43.5874 IN-ES
240.000	-20.000	.000	4.000	TRP .0000 IN-ES
				ZTRP 16.2000 IN-ES
				SCALE .0405

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(AD-257)	NR.701.0405 098 816C507F 15612487E18V5X10+GP
(AD-258)	NR.701.0405 098 816C507F 15612487E18V5X10+GP
(AD-259)	NR.701.0405 098 816C507F 15612487E18V5X10+GP
(AD-260)	NR.701.0405 098 816C507F 15612487E18V5X10+GP



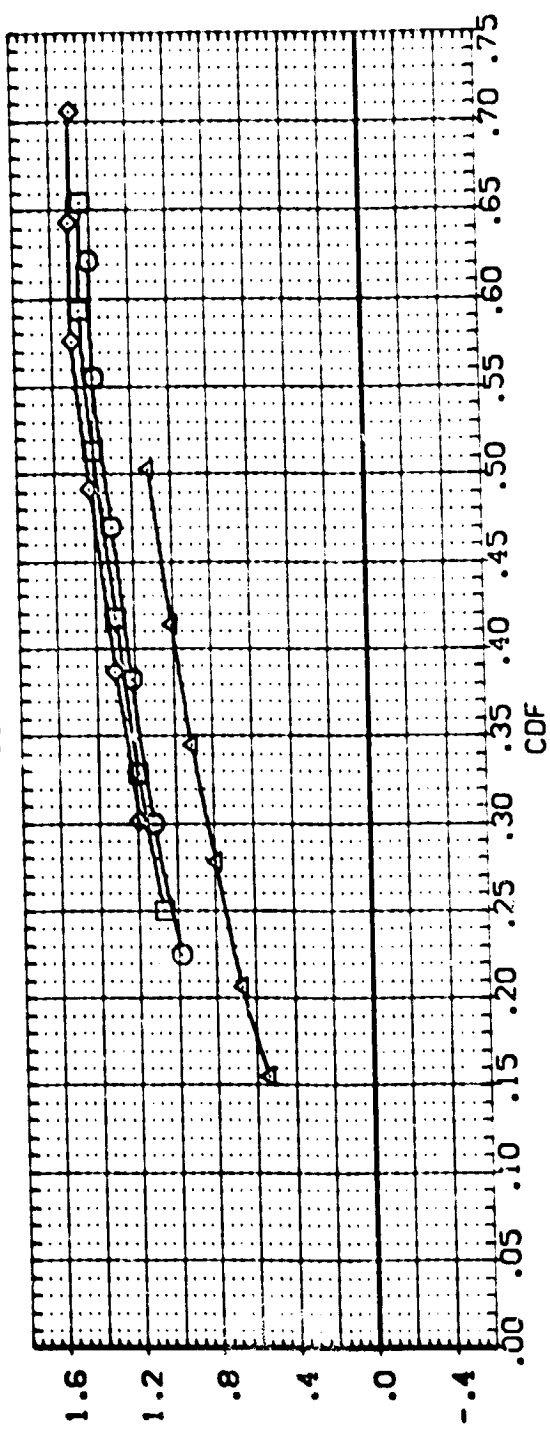
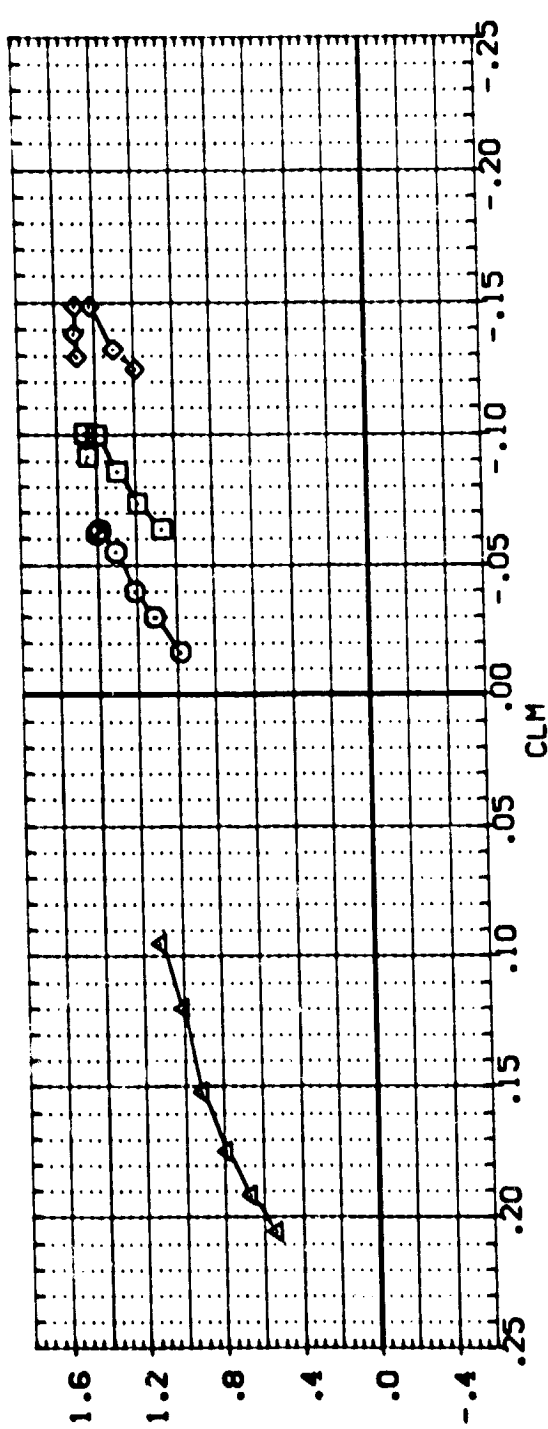
ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=240.0 INCHES

(A)MACH = .16

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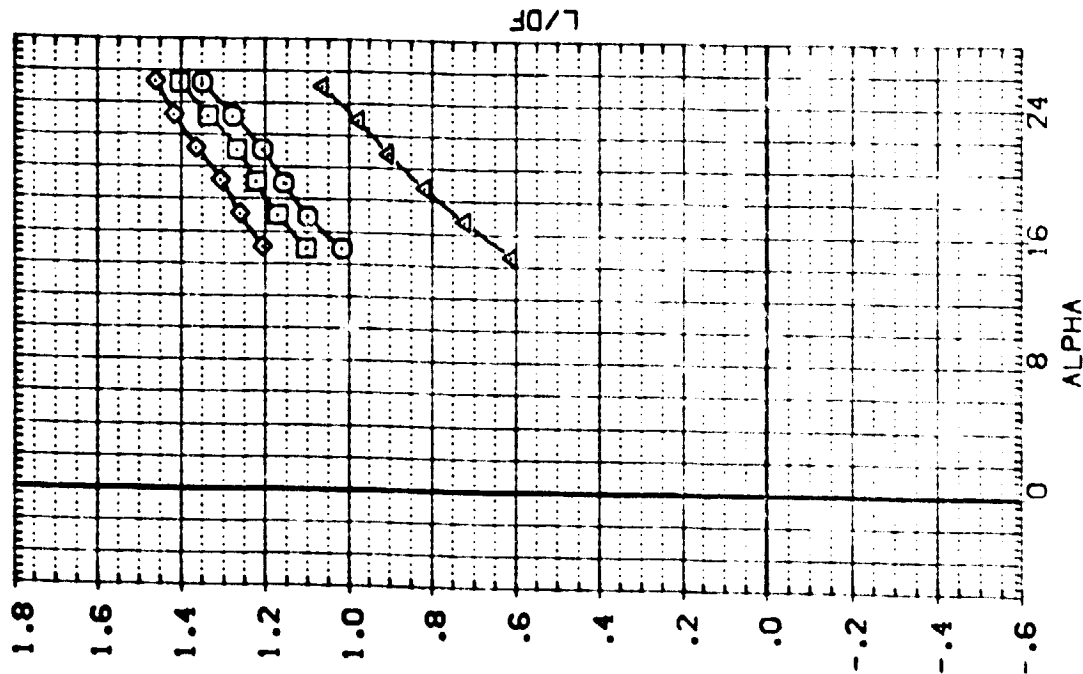
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACAL	LIP	REFERENCE INFORMATION
(AD-297)	NR.701.0405 098 816C307F 145G12V87V5X10+GP	240.000	.000	.000	4.000	SREF 4.1119 SQ.FT.
(AD-298)	NR.701.0405 098 816C307F 145G12V87V5X10+GP	240.000	5.000	.000	4.000	LREF 19.2359 INCHES
(AD-299)	NR.701.0405 098 816C307F 145G12V87V5X10+GP	240.000	15.000	.000	4.000	BREF 37.9349 INCHES
(AD-300)	NR.701.0405 098 816C307F 145G12V87V5X10+GP	240.000	-20.000	.000	4.000	XREF 43.5974 INCHES
(AD-298)	NR.701.0405 098 816C307F 145G12V87V5X10+GP	240.000				ZREF 16.2000 INCHES
						SCALE .0405 INCHES



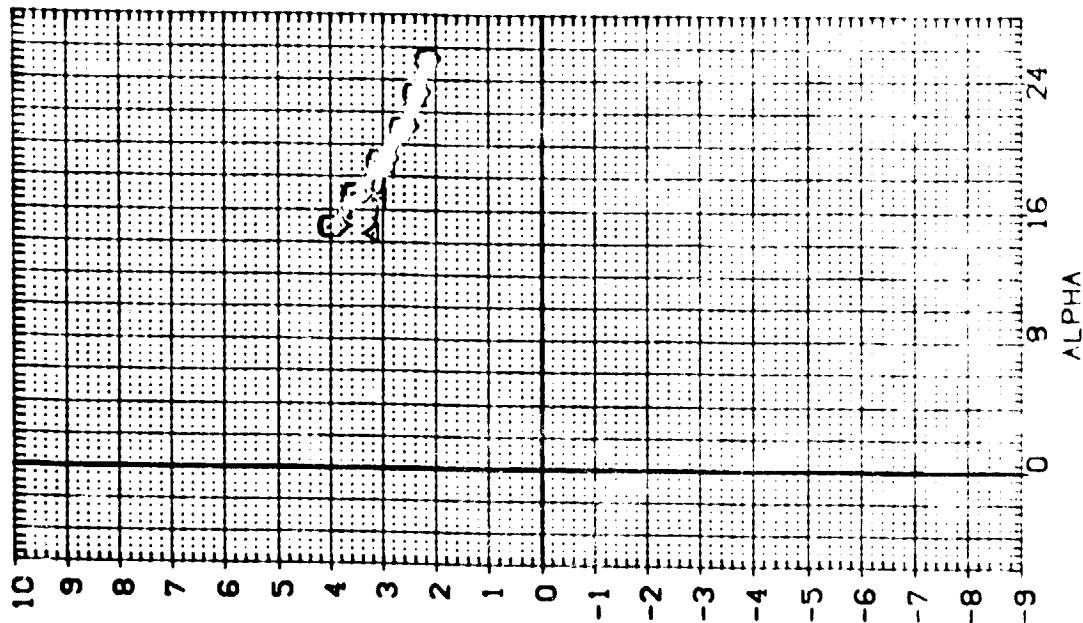
ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=240.0 INCHES

[illegible]

	(AD-G03)	(AD-G02)	(AD-G01)	(AD-G04)	(AD-G05)
NR. 701.0405	098	01653076	1701.24876	18V5X10+G	
NR. 701.0405	098	01653076	1701.24876	18V5X10+G	
NR. 701.0405	098	01653076	1701.24876	18V5X10+G	
NR. 701.0405	098	01653076	1701.24876	18V5X10+G	



GP-POS	ELEVN	NACVL	LIP	REFERENCE	INFORMATION
240.000	.000	.000	4.000	SREF	4.4119 SQ.FT.
240.000	.000	.000	4.000	LREF	19.2593 INCHES
240.000	5.000	.000	4.000	BREF	37.9049 INCHES
240.000	15.000	.000	4.000	YREF	43.5974 INCHES
240.000	-20.000	.000	4.000	YREF	.0000 INCHES
				ZREF	16.2000 INCHES
				SCALE	.0405 SCALE



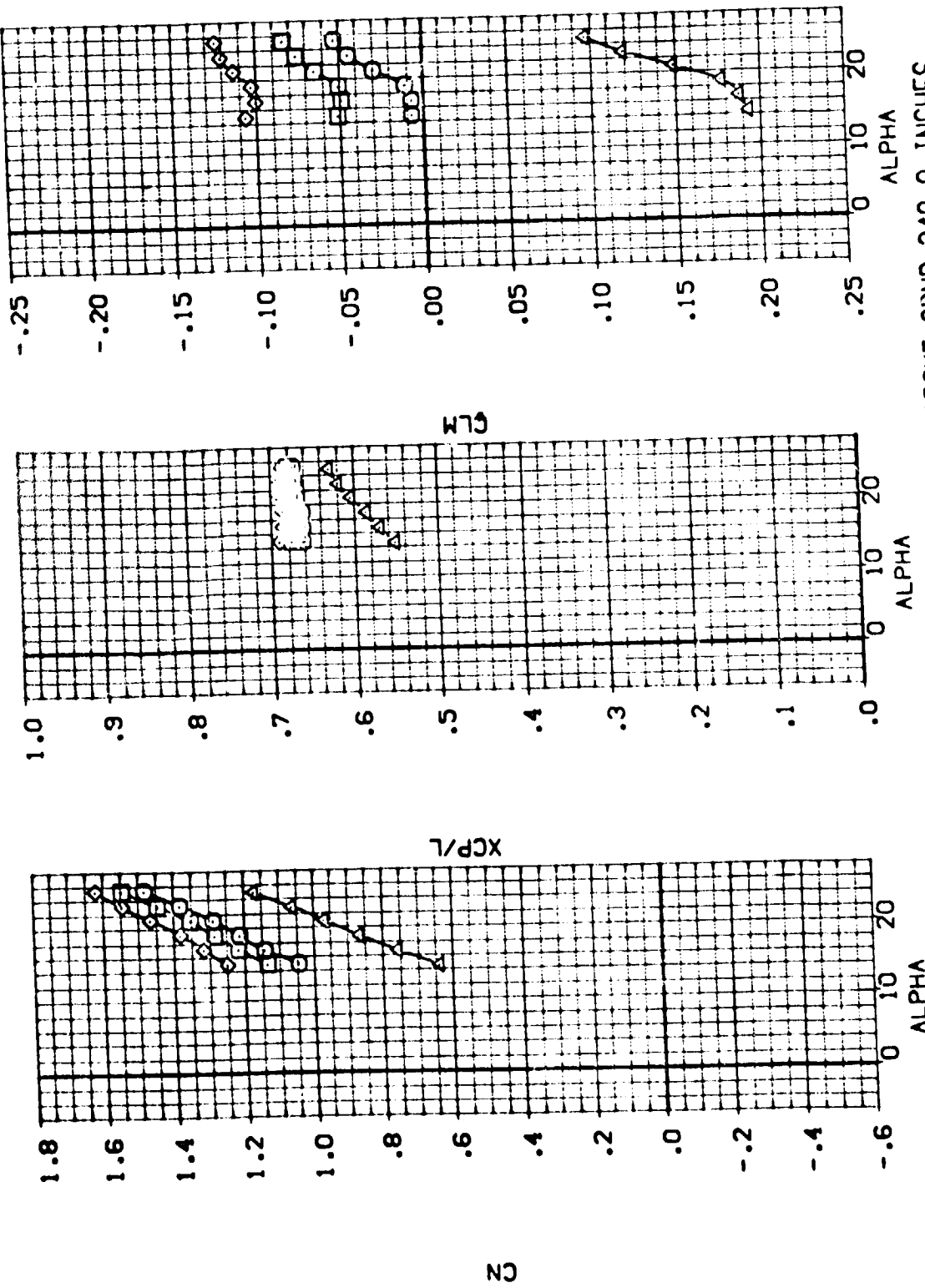
ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH , HGT. ABOVE GRND=240.0 INCHES

$$C_A]_{MACH} = .16$$

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DATA SET SYMBOL	CON	IGUATION	DESCRIPTION	GP-4005	ELEVON	NACAL	LIP	REFERENCE INFORMATION
(ADNG005)	MR.701	04.05	088	240.000	.000	.000	4.000	SREF 4.4119 50.FT. INCHES
(ADNG005)	MR.701	04.05	088	240.000	.000	.000	4.000	UREF 19.2599 19.2599 INCHES
(ADNG005)	MR.701	04.05	088	240.000	.000	.000	4.000	BREF 37.9349 37.9349 INCHES
(ADNG005)	MR.701	04.05	088	240.000	.000	.000	4.000	XREF 43.5974 43.5974 INCHES
(ADNG005)	MR.701	04.05	088	240.000	.000	.000	4.000	YREF 16.2000 16.2000 INCHES
(ADNG005)	MR.701	04.05	088	240.000	.000	.000	4.000	ZREF 16.2000 16.2000 INCHES
(ADNG005)	MR.701	04.05	088	240.000	.000	.000	4.000	SCALE .0405 SCALE



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND=240.0 INCHES

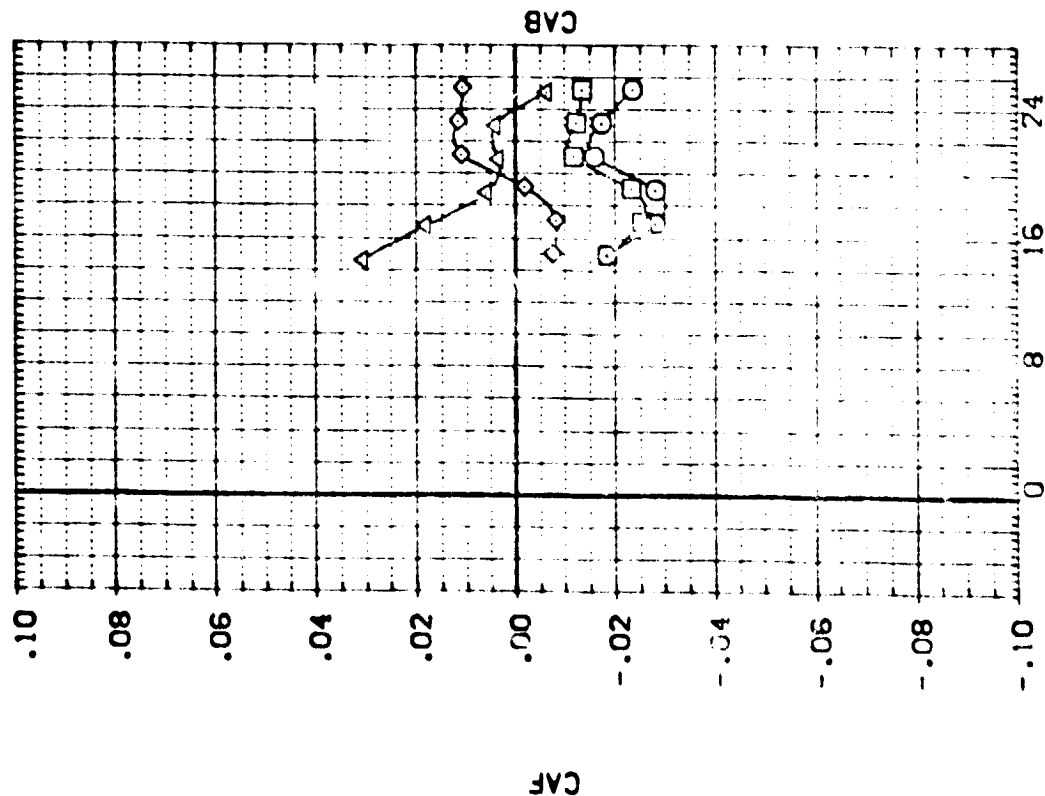
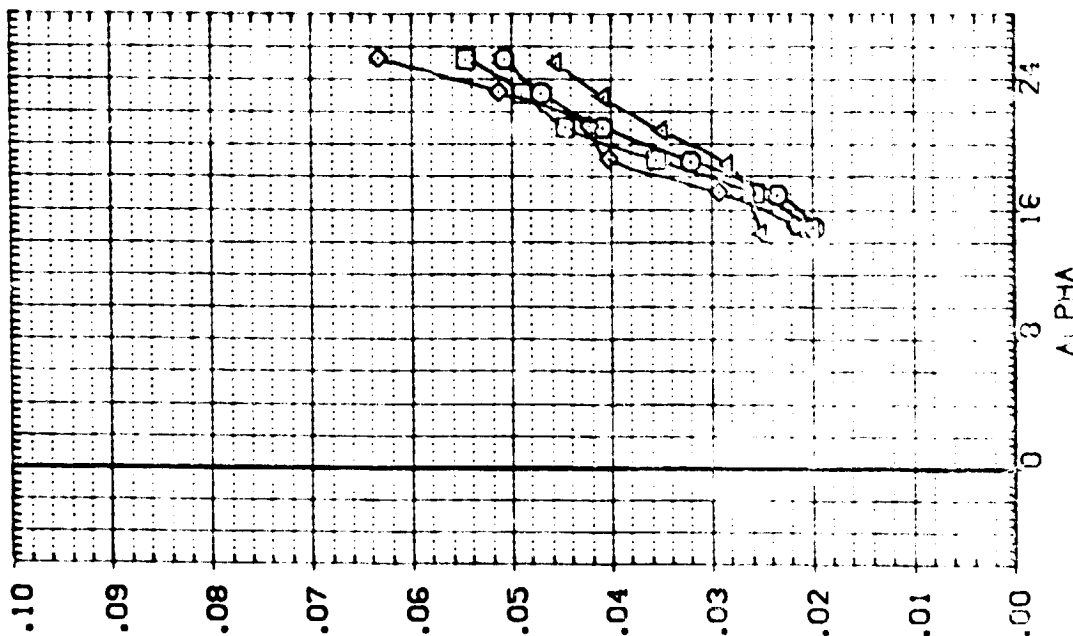
(A)MACH = .16

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      REFERENCE INFORMATION

GP-POS	ELEVATION	NACVAL	LIP	SCALE	50-FT.
240.000	.000	.000	4.000	1.000	IN-ES
240.000	5.000	.000	4.000	1.000	IN-ES
240.000	15.000	.000	4.000	1.000	IN-ES
240.000	-20.000	.000	4.000	1.000	IN-ES

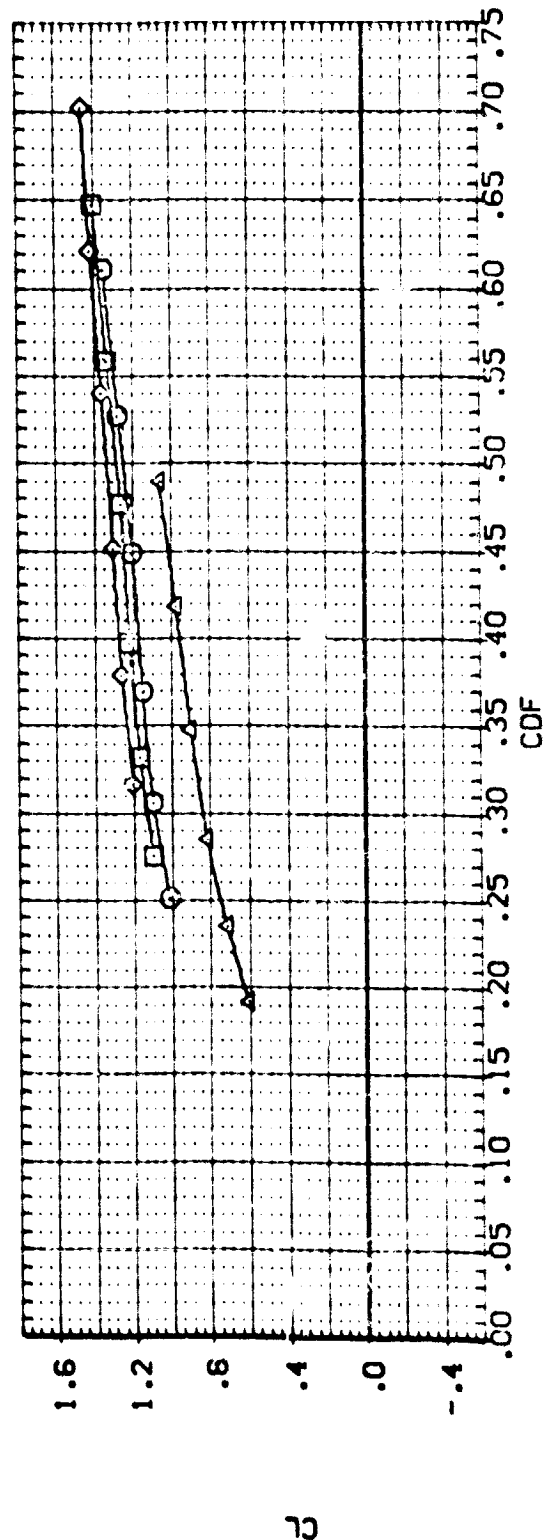
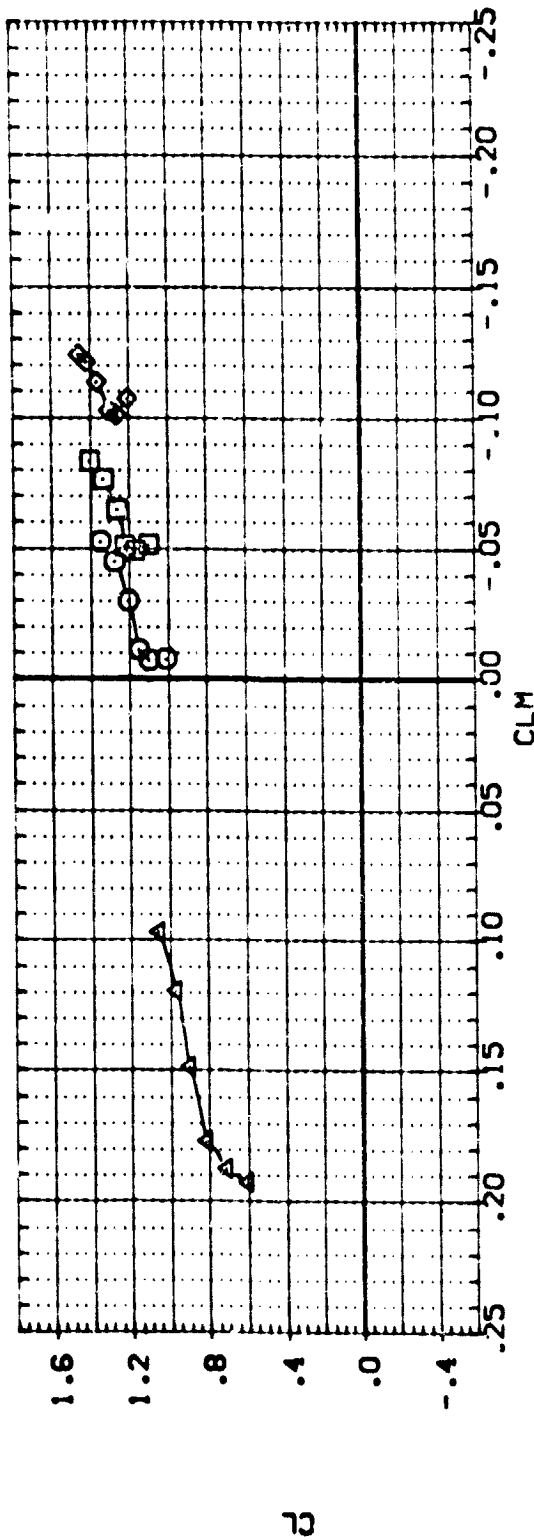
DATA SET SYMBOL      CONFIGURATION DESCRIPTION      REFERENCE INFORMATION

GP-POS	ELEVATION	NACVAL	LIP	SCALE	50-FT.
240.000	.000	.000	4.000	1.000	IN-ES
240.000	5.000	.000	4.000	1.000	IN-ES
240.000	15.000	.000	4.000	1.000	IN-ES
240.000	-20.000	.000	4.000	1.000	IN-ES



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH. HGT. ABOVE GRID=240.0 INCHES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
(AD-005)	NR.701.0405 373 815C507F 147G12V87V3X10+GP	240.000	.000	.000	4.000	SREF 4.4119 50.FT
(AD-006)	NR.701.0405 373 815C507F 147G12V87V3X10+GP	240.000	.000	.000	4.000	LREF 19.2359 10.FT
(AD-007)	NR.701.0405 373 815C507F 147G12V87V3X10+GP	240.000	.000	.000	4.000	BREF 37.9319 10.FT
(AD-008)	NR.701.0405 373 815C507F 147G12V87V3X10+GP	240.000	.000	.000	4.000	YREF 43.5974 10.FT
(AD-009)	NR.701.0405 373 815C507F 147G12V87V3X10+GP	240.000	.000	.000	4.000	ZREF 16.2000 10.FT
(AD-010)	NR.701.0405 373 815C507F 147G12V87V3X10+GP	240.000	.000	.000	4.000	SCALE 16.0405

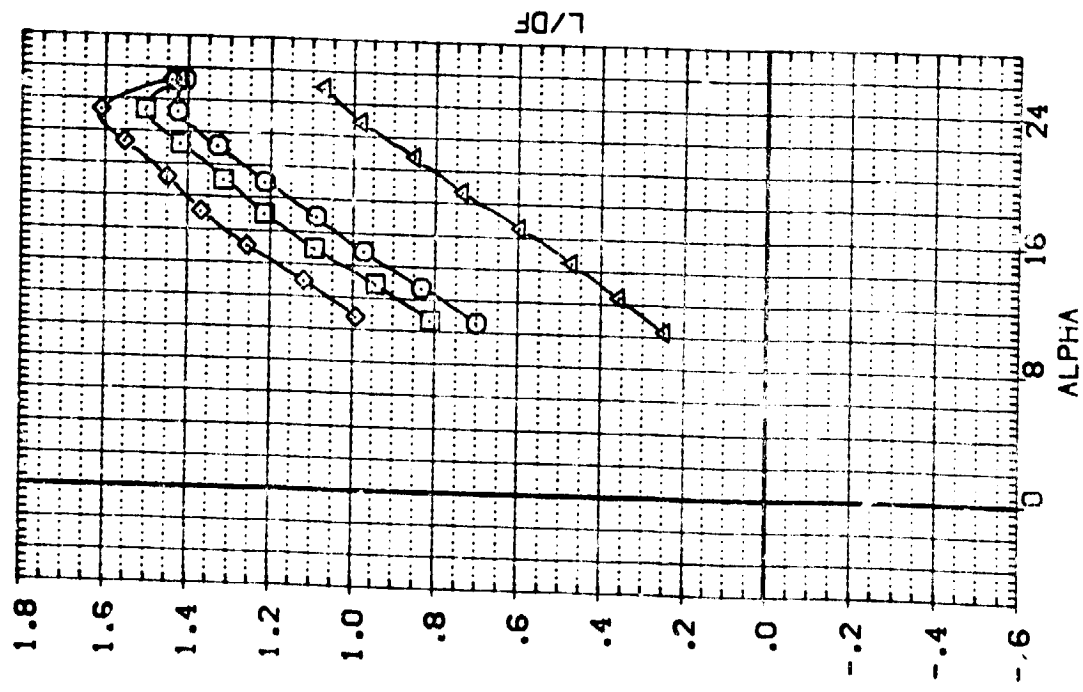


ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH . HGT. ABOVE GRND=240.0 INCHES

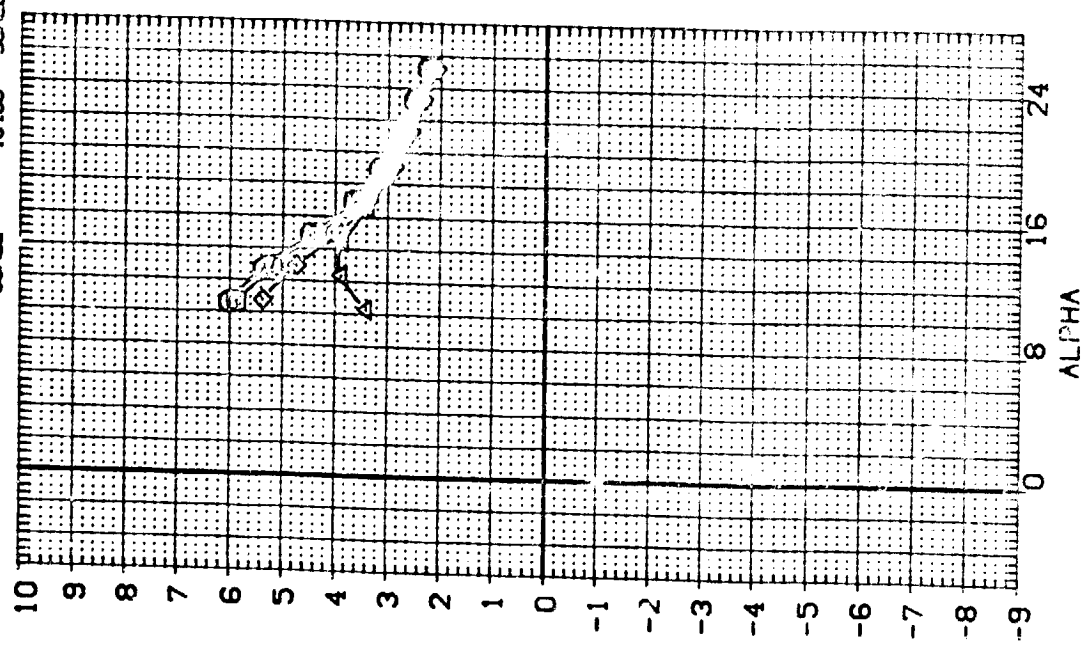
(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(FDG234) NR.701.0405 DBB B18C507F IG12487E18V5X9+GP  
 (FDG235) NR.701.0405 DBB B18C507F IG12487E18V5X9+GP  
 (FDG236) NR.701.0405 DBB B18C507F IG12487E18V5X9+GP  
 (FDG237) NR.701.0405 DBB B18C507F IG12487E18V5X9+GP



GP-POS: ELEVON NACVAL LIP REFERENCE INFORMATION  
 209.000 .000 4.000 SREF 4.4119 50.000  
 209.000 5.000 4.000 LREF 19.2889 10.000  
 209.000 15.000 4.000 BREF 37.9349 10.000  
 209.000 -20.000 4.000 XREF 43.5674 10.000  
 YREF .0000 10.000  
 ZREF 16.2000 10.000  
 SCALE .0405 10.000



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 209.0 INCHES

CAMMACH = .16

DATA SET SYMBOL  
 (FDV234)  
 (FDV235)  
 (FDV236)  
 (FDV237)

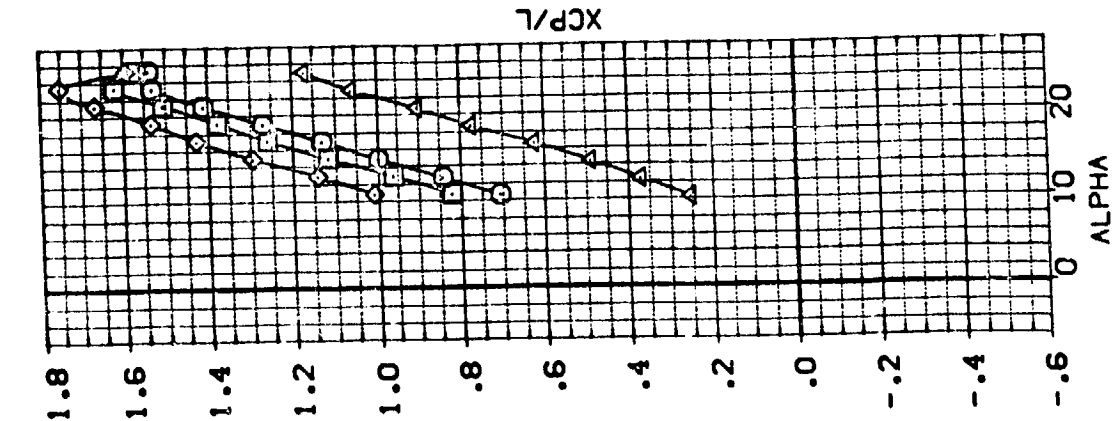
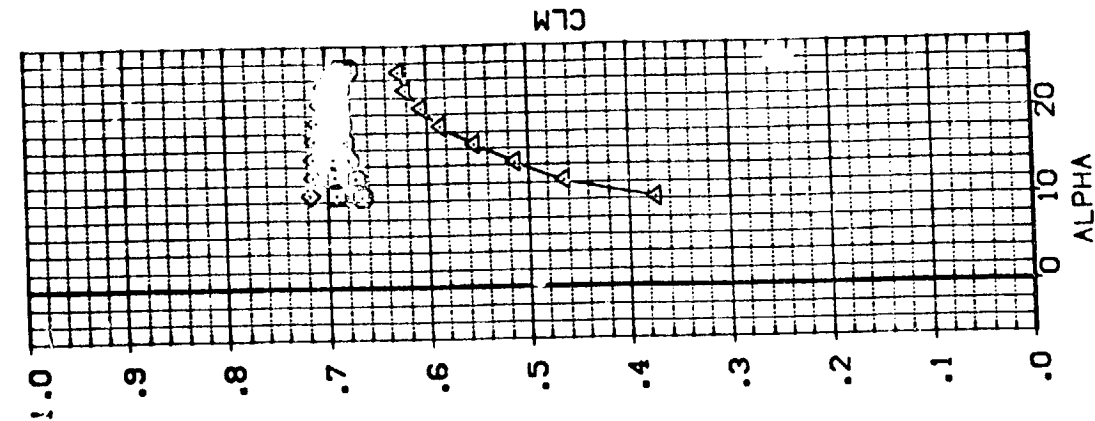
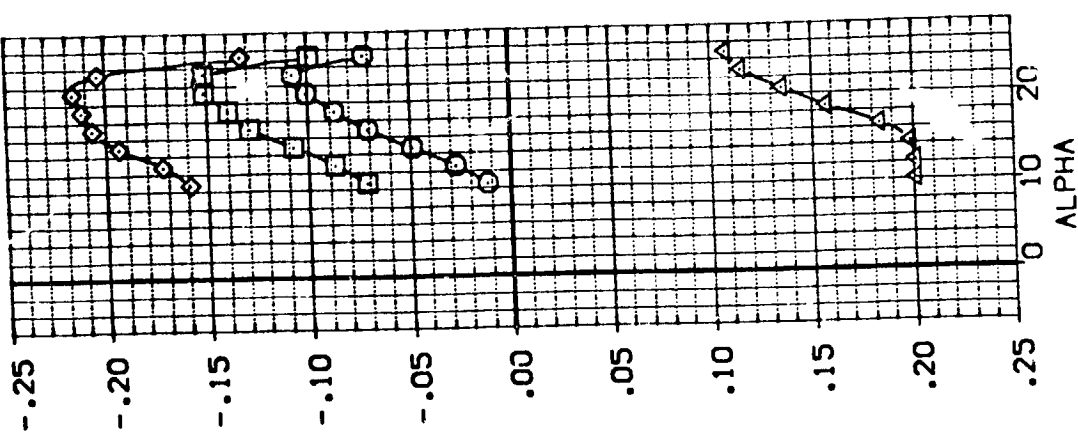
CONFIGURATION DESCRIPTION  
 NR.701.0405 088 B16C507F IG12V87E18VSX9+GP  
 NR.701.0405 088 B16C507F IG12V87E18VSX9+GP  
 NR.701.0405 088 B16C507F IG12V87E18VSX9+GP  
 NR.701.0405 088 B16C507F IG12V87E18VSX9+GP

GP POS ELEVON  
 209.000 .000  
 209.000 5.000  
 209.000 15.000  
 209.000 -20.000

NACAL

LIP

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2999 INCHES  
 BREF 37.5319 INCHES  
 XREF 43.5374 INCHES  
 YREF 16.2000 INCHES  
 ZREF .0405 SCALE

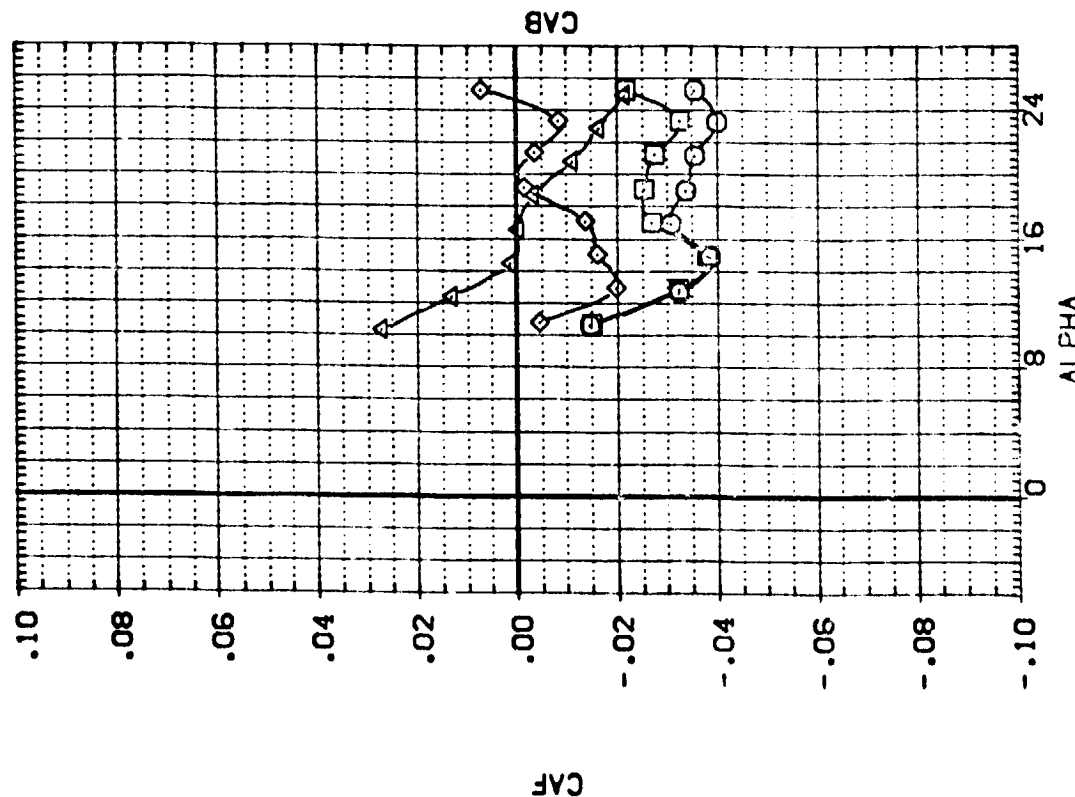
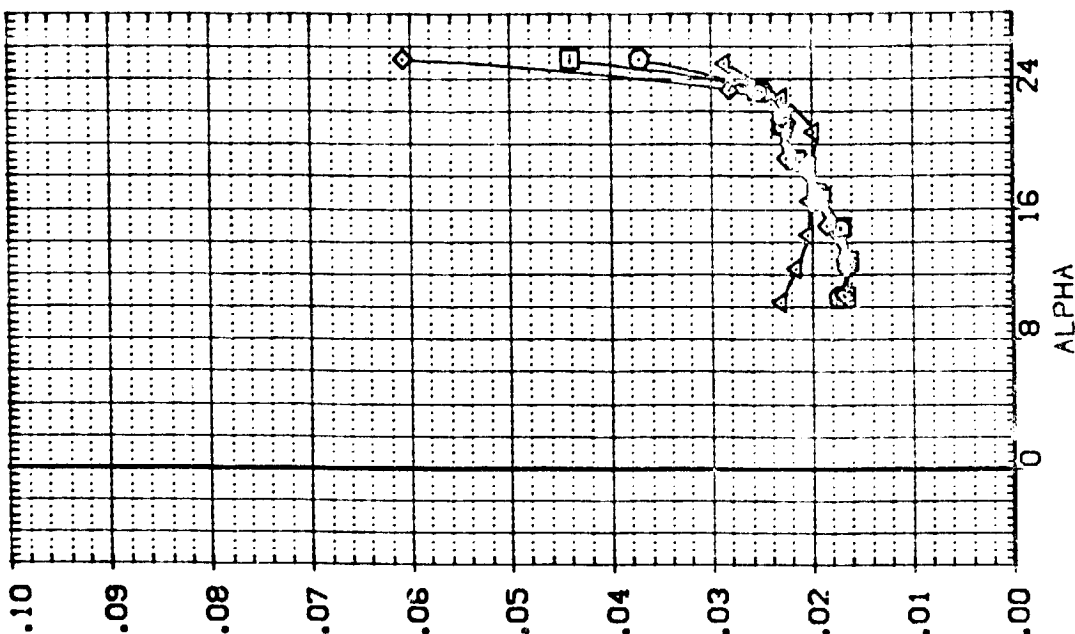


ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 209.0 INCHES

CAMMACH = .16

GP-POS	ELEVON	NACA/L	LIP	REFERENCE INFORMATION
209.000	.000	.000	4.000	SREF 4.4119 50.000
209.000	.000	.000	4.000	LREF 19.2898 100.000
209.000	5.000	.000	4.000	BREF 37.9349 100.000
209.000	15.000	.000	4.000	XREF 43.5574 100.000
209.000	-20.000	.000	4.000	YREF 16.2000 100.000
				ZREF 16.2000 100.000
				SCALE .0405

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(FDQ234)	NR.701.0405 0R8 B16C507E 1G12487E 18VSX9+GP
(FDQ235)	NR.701.0405 0R8 B16C507E 1G12487E 18VSX9+GP
(FDQ236)	NR.701.0405 0R8 B16C507E 1G12487E 18VSX9+GP
(FDQ237)	NR.701.0405 0R8 B16C507E 1G12487E 18VSX9+GP



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 209.0 INCHES

(A)MACH = .16

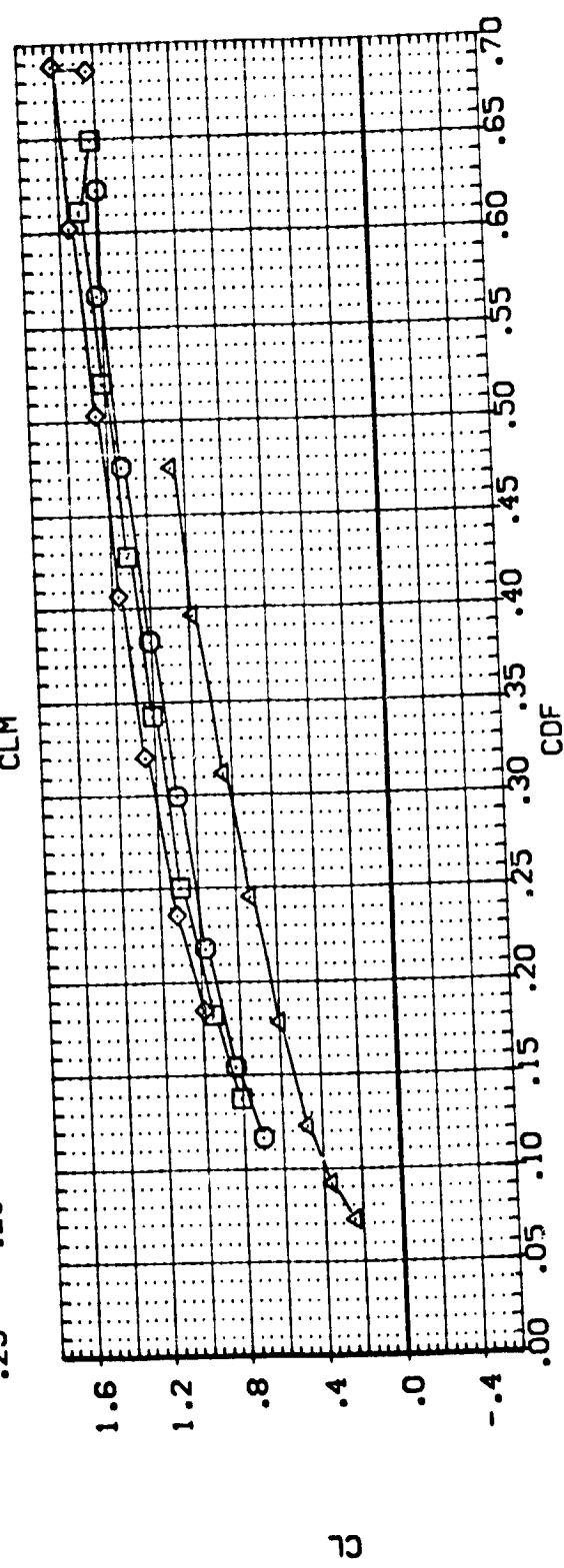
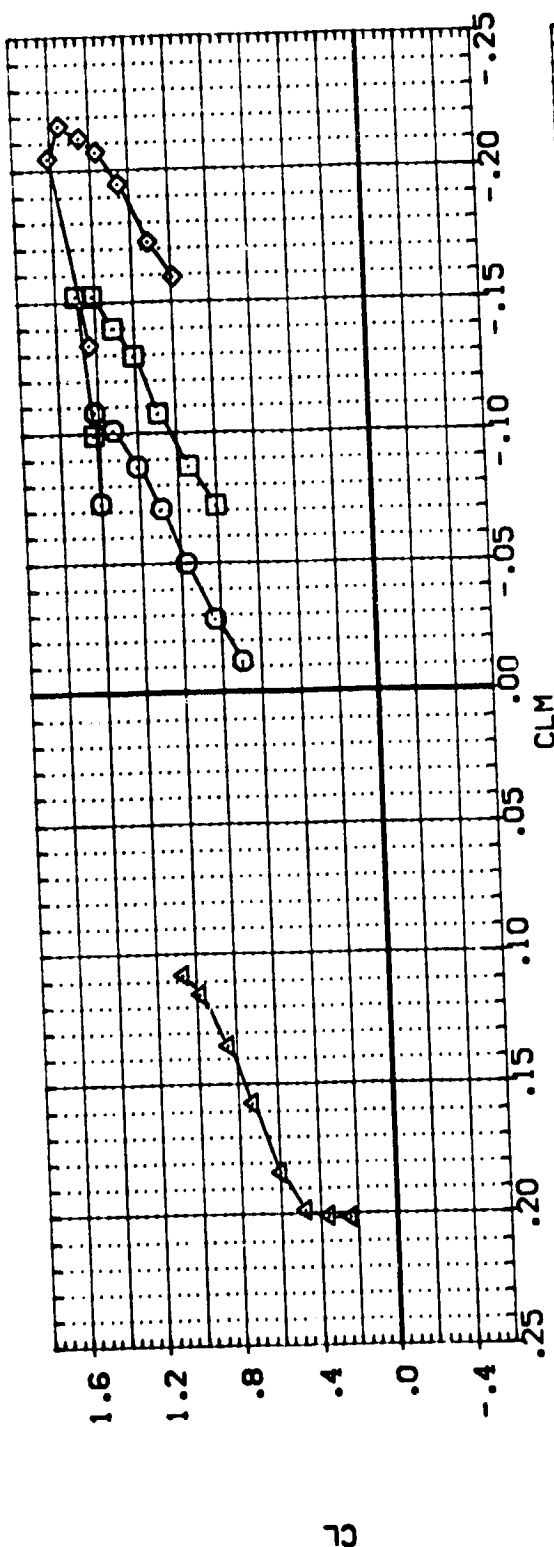
DATA SET SYMBOL:  $\square$   $\Delta$   $\circ$   $\diamond$

CONFIGURATION DESCRIPTION

GP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
209.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
209.000	.000	.000	4.000	UREF 19.2999 INCHES
209.000	5.000	.000	4.000	BREF 37.9249 INCHES
209.000	15.000	.000	4.000	XREF 43.5074 INCHES
209.000	-20.000	.000	4.000	YREF 16.2000 INCHES
				ZREF 16.2000 INCHES
				SCALE .0405

CONFIGURATION DESCRIPTION

NR	701	0405	U28	B16C507F161	2487E18VSX3+GP
(FDG234)					
(FDG235)					
(FDG236)					
(FDG237)					



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 209.0 INCHES

(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[FD023] NR.701.0405 088 816CS07F 1687V5X10-GP

[AD0231] NR.701.0405 088 816CS07F 13612V87V5X10-GP

[AG0234] NR.701.0405 088 816CS07F 15612V87V5X10-GP

[AG0310] NR.701.0405 088 816CS07F 17612V87V5X10-GP

GP-POS 8-FLAP MACVL LIP REFERENCE INFORMATION

209.000 -18.000 .000 4.000 SRJF 4.4119 50.FT:

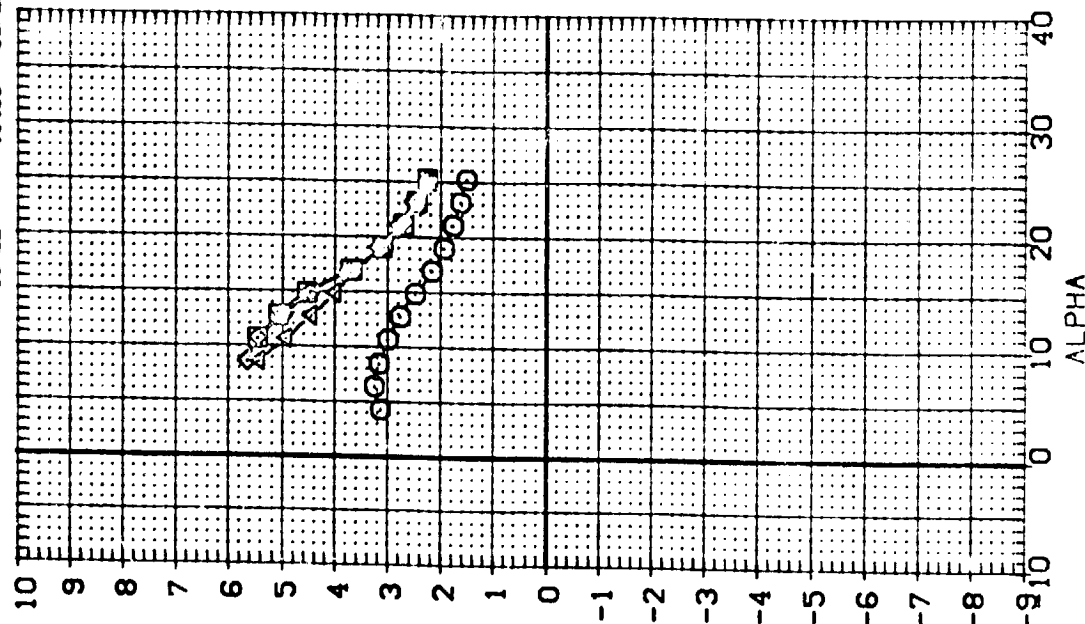
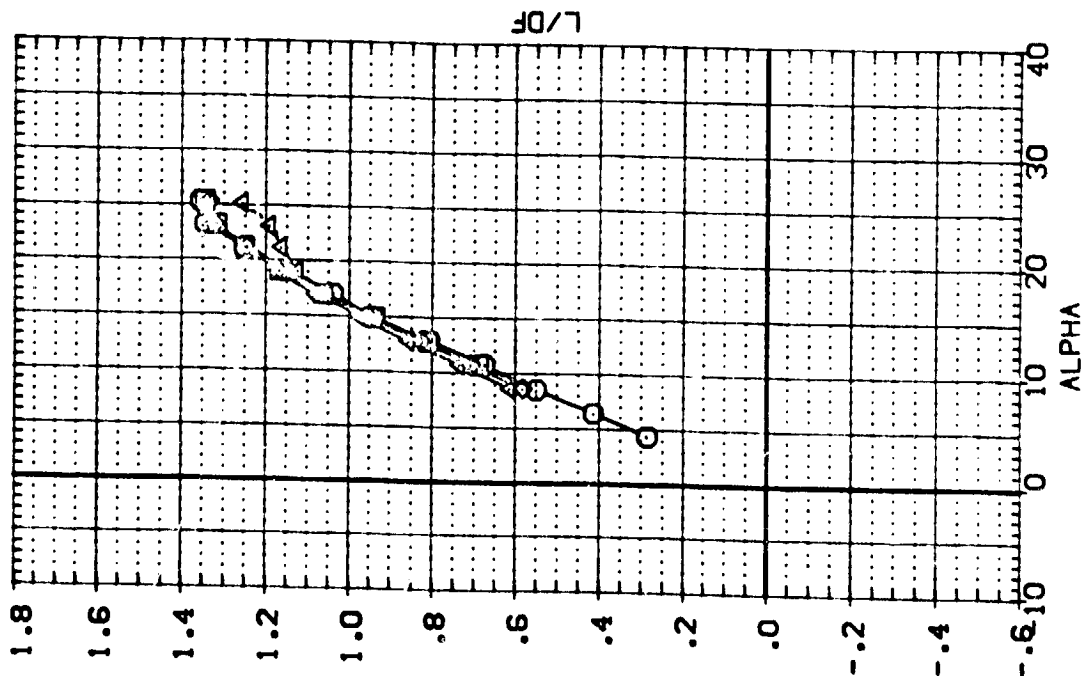
209.000 -18.000 .000 4.000 LREF 19.2889 INCHES

209.000 -18.000 .000 4.000 BREF 37.5349 INCHES

209.000 -18.000 .000 4.000 YRPP 43.5974 INCHES

209.000 -18.000 .000 4.000 ZRPP 16.2000 INCHES

SCALE .0405 SCALE

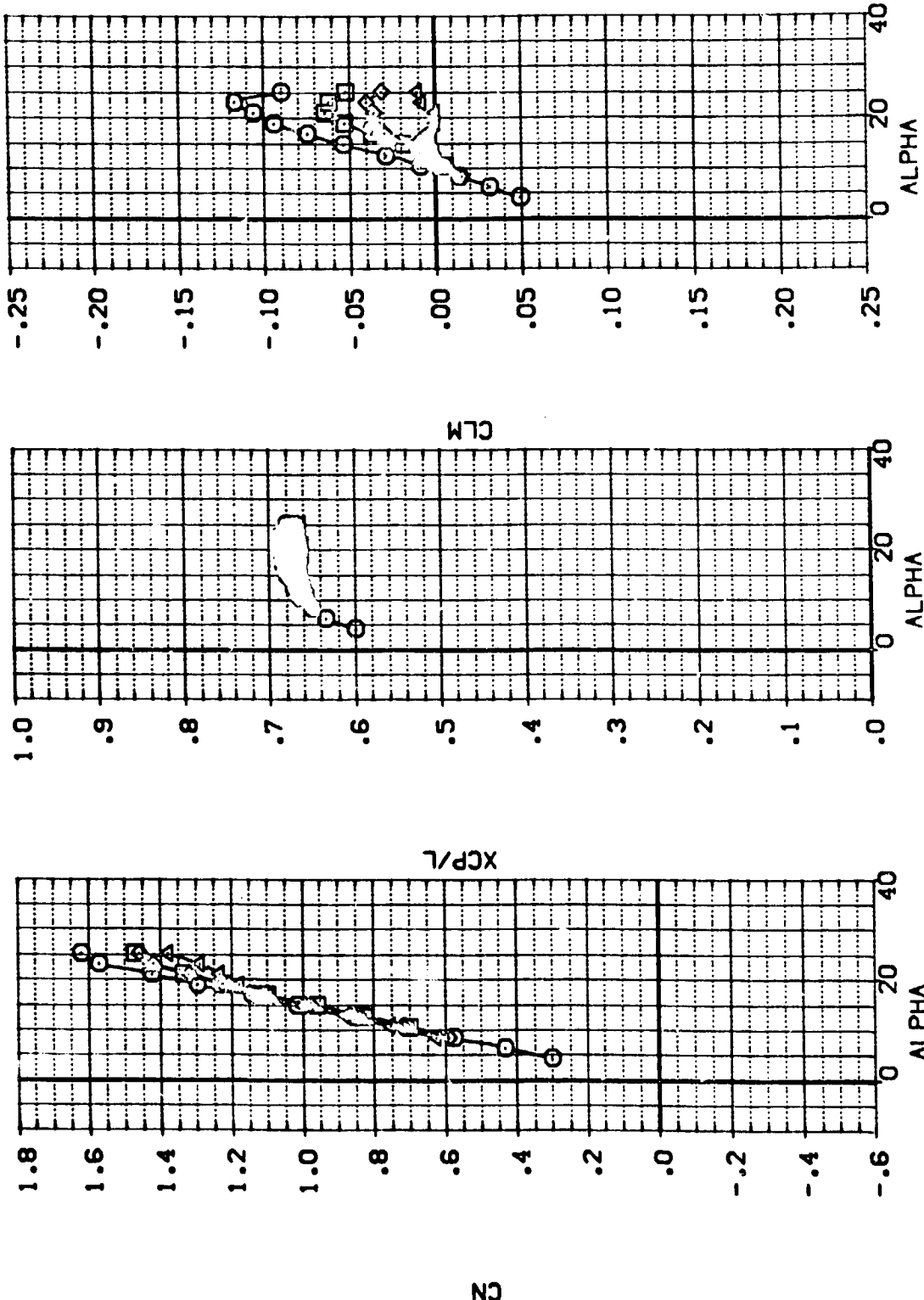


EFFECT OF ABES, HEIGHT ABOVE GROUND= 209.0 INCHES

(A)MACH = .16



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	8-FLAP	NACAL	LIP	REFERENCE INFORMATION
(FDQ23)	NR.701.0405 C-8 B18CS07F1V87V5X10+GP	209.000	-18.000	.000	4.000	SREF 4.4119 49.000
(ADQ231)	NR.701.0405 C-8 B18CS07F1V87V5X10+GP	209.000	-18.000	.000	4.000	LREF 19.2899 19.000
(ADQ234)	NR.701.0405 C-8 B18CS07F1V87V5X10+GP	209.000	-18.000	.000	4.000	BREF 37.9319 19.000
(ADQ234)	NR.701.0405 C-8 B18CS07F1V87V5X10+GP	209.000	-18.000	.000	4.000	XREF 43.5974 19.000
(ADQ210)	NR.701.0405 C-8 B18CS07F1V87V5X10+GP	209.000	-18.000	.000	4.000	YREF 16.2000 19.000
						ZREF 16.2000 19.000
						SCALE .0405



EFFECT OF ABES. HEIGHT ABOVE GROUND= 209.0 INCHES

(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(FDX23) 16.701.0405 088 816CS07F1V87V5X10+GP

(ADN231) 16.701.0405 083 816CS07F1J3612V37V5X10+GP

(ADN294) 16.701.0405 088 816CS07F1J5612V67V5X10+GP

(ADN310) 16.701.0405 088 816CS07F1J7612V67V5X10+GP

GP-POS 209.000 209.000 209.000 209.000

B-FLAP -18.000 -18.000 -18.000 -18.000

NACVAL .000 .000 .000 .000

LIP 4.000 4.000 4.000 4.000

REFERENCE INFORMATION

SREF 4.4119 50-FT.

LREF 19.2889 INCHES

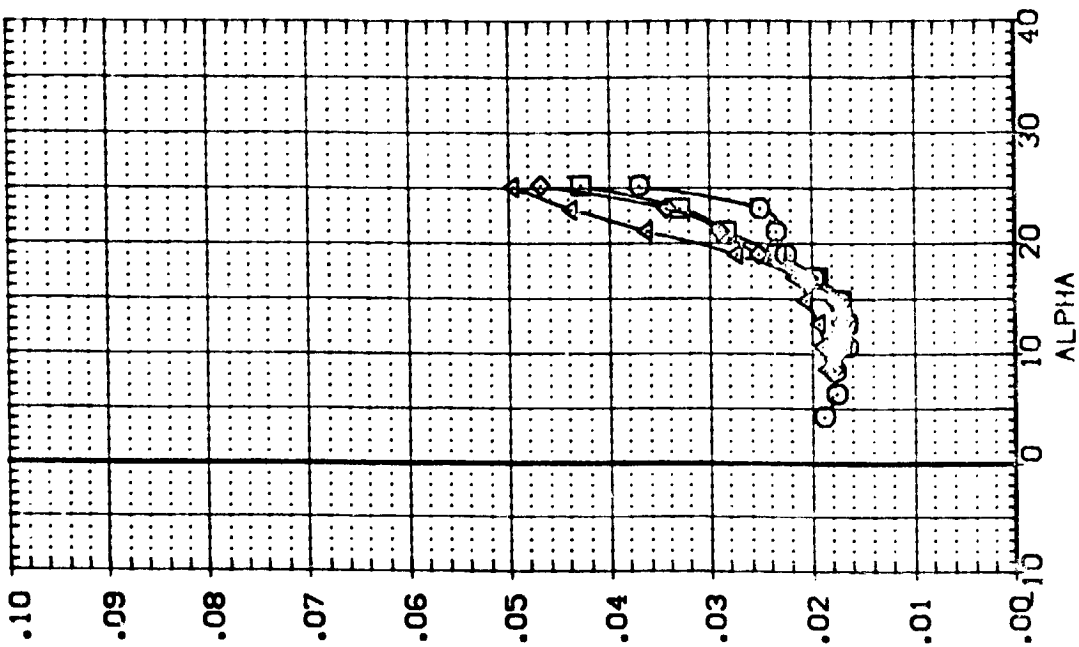
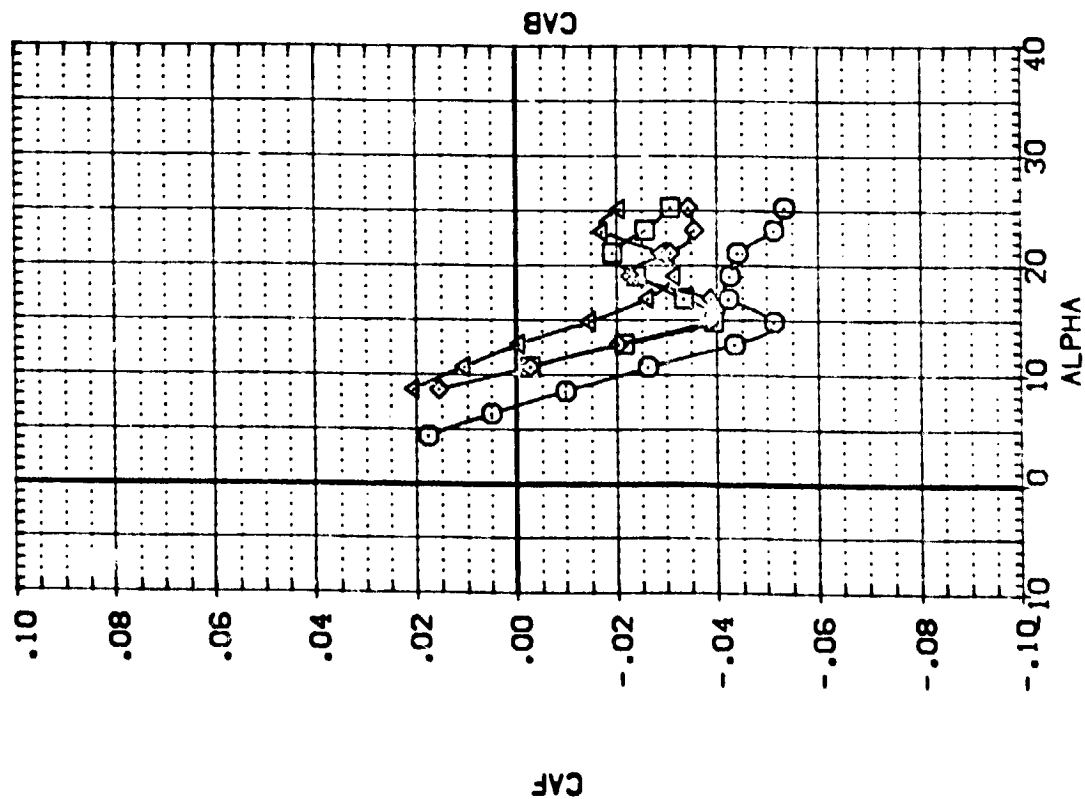
PREF 37.8349 INCHES

XREF 43.5974 INCHES

YREF .0000 INCHES

ZREF 16.2000 INCHES

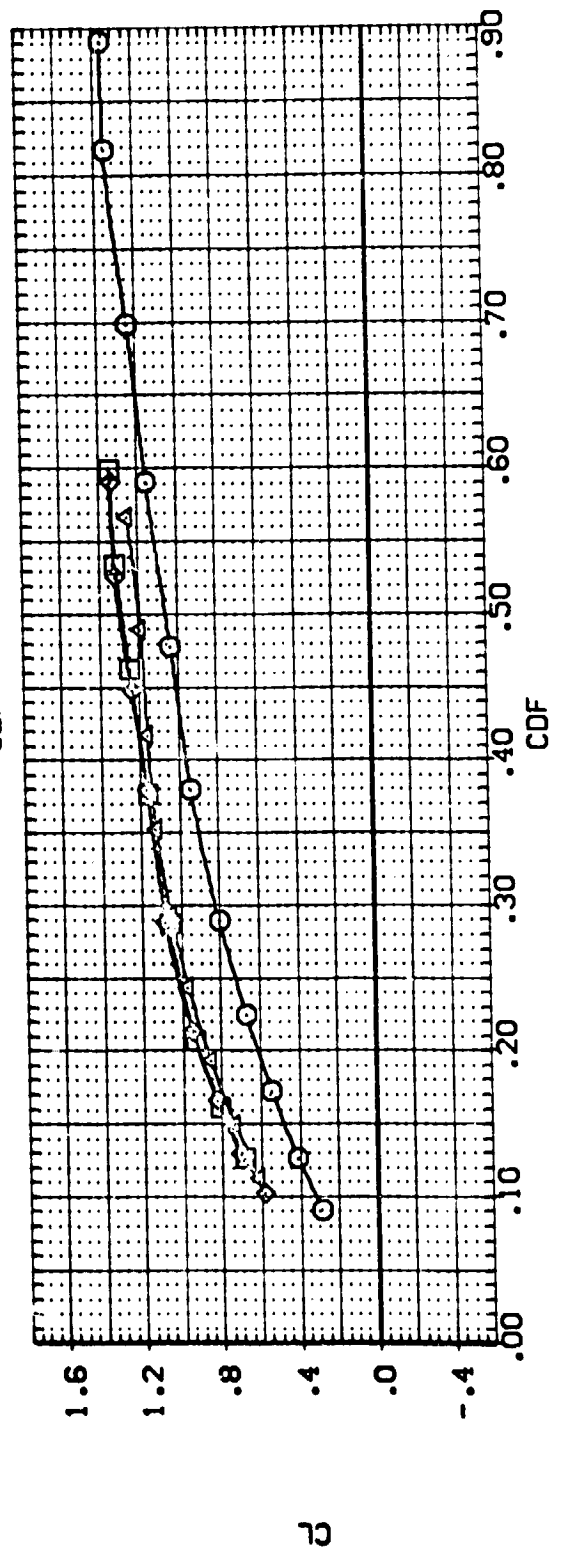
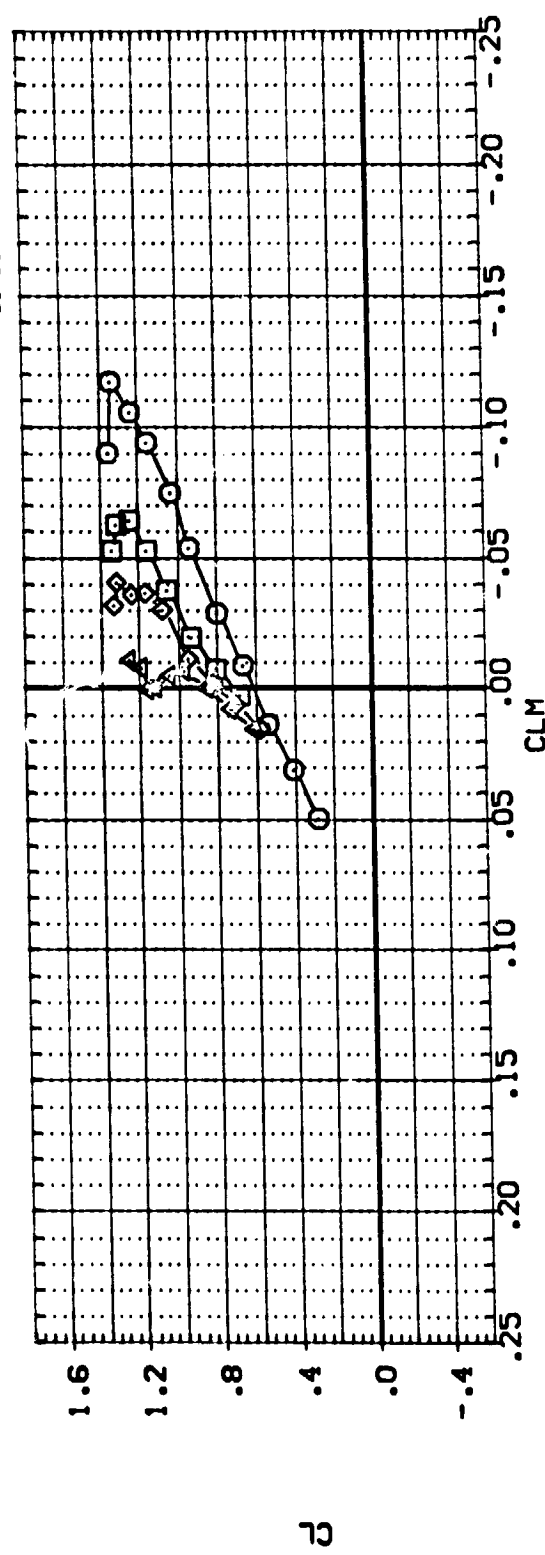
SCALE .0405



EFFECT OF ABES, HEIGHT ABOVE GROUND= 209.0 INCHES

CAJMACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP POS	B FLAP	NACVAL	LIP	REFERENCE INFORMATION
(FDN233)	NR 701 .0405 078 816C507F 1V87V5X10-GP	209.000	-18.000	.000	4.000	SREF 4.4119 50.FT.
(ADN231)	NR 701 .0405 078 816C507F 1J3612V87V5X10-GP	209.000	-18.000	.000	4.000	I REF 19.2959 INO-ES
(ADN234)	NR 701 .0405 078 816C507F 1J5612V87V5X10-GP	209.000	-18.000	.000	4.000	BREF 37.9319 INO-ES
(ADN310)	NR 701 .0405 078 816C507F 1J7612V87V5X10-GP	209.000	-18.000	.000	4.000	XREF 43.5374 INO-ES
						YREF 16.0000 INO-ES
						ZREF 16.2000 INO-ES
						SCALE .0405



EFFECT OF ABES, HEIGHT ABOVE GROUND= 209.0 INCHES

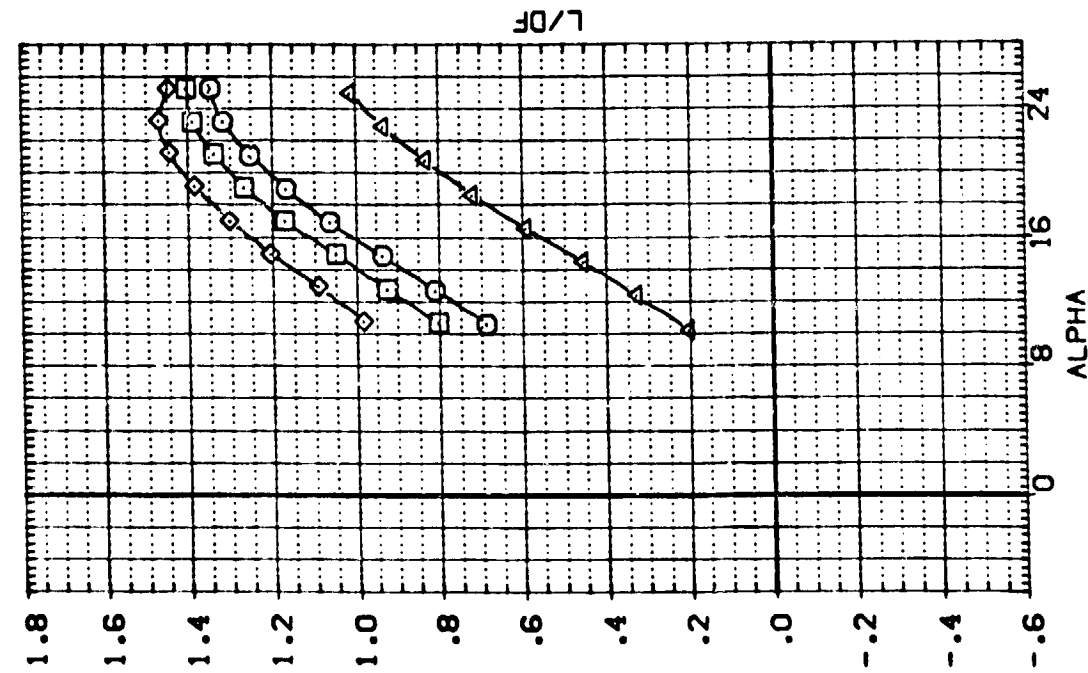
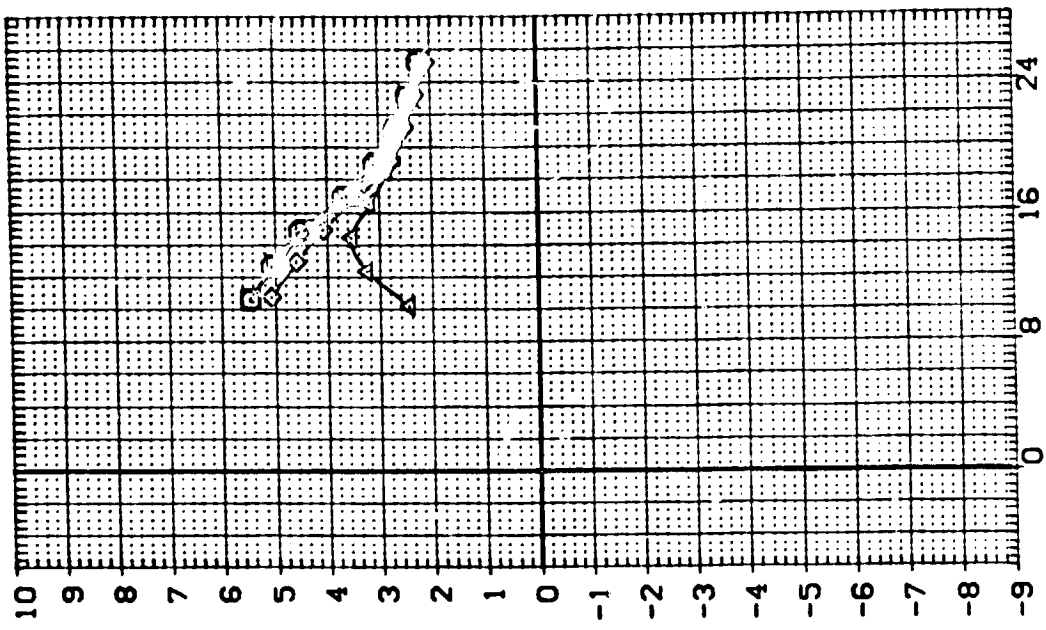
[A]MACH = .16

DATA SET SYMBOL. C/NF [C/NF] DESCRIPTION

GP-POS	ELEVON	NACVL	LIP	REFERENCE INFORMATION	SO. FT.
209.000	.000	.000	4.000	SREF	4.119
209.000	.000	.000	4.000	LREF	19.299
209.000	5.000	.000	4.000	BREF	37.934
209.000	15.000	.000	4.000	XREF	43.597
209.000	-20.000	.000	4.000	YREF	.000
				ZREF	16.200
				SCALE	.0405

GP-POS ELEVON NACVL LIP REFERENCE INFORMATION SO. FT.

209.000	.000	.000	4.000	SREF	4.119
209.000	.000	.000	4.000	LREF	19.299
209.000	5.000	.000	4.000	BREF	37.934
209.000	15.000	.000	4.000	XREF	43.597
209.000	-20.000	.000	4.000	YREF	.000
				ZREF	16.200
				SCALE	.0405

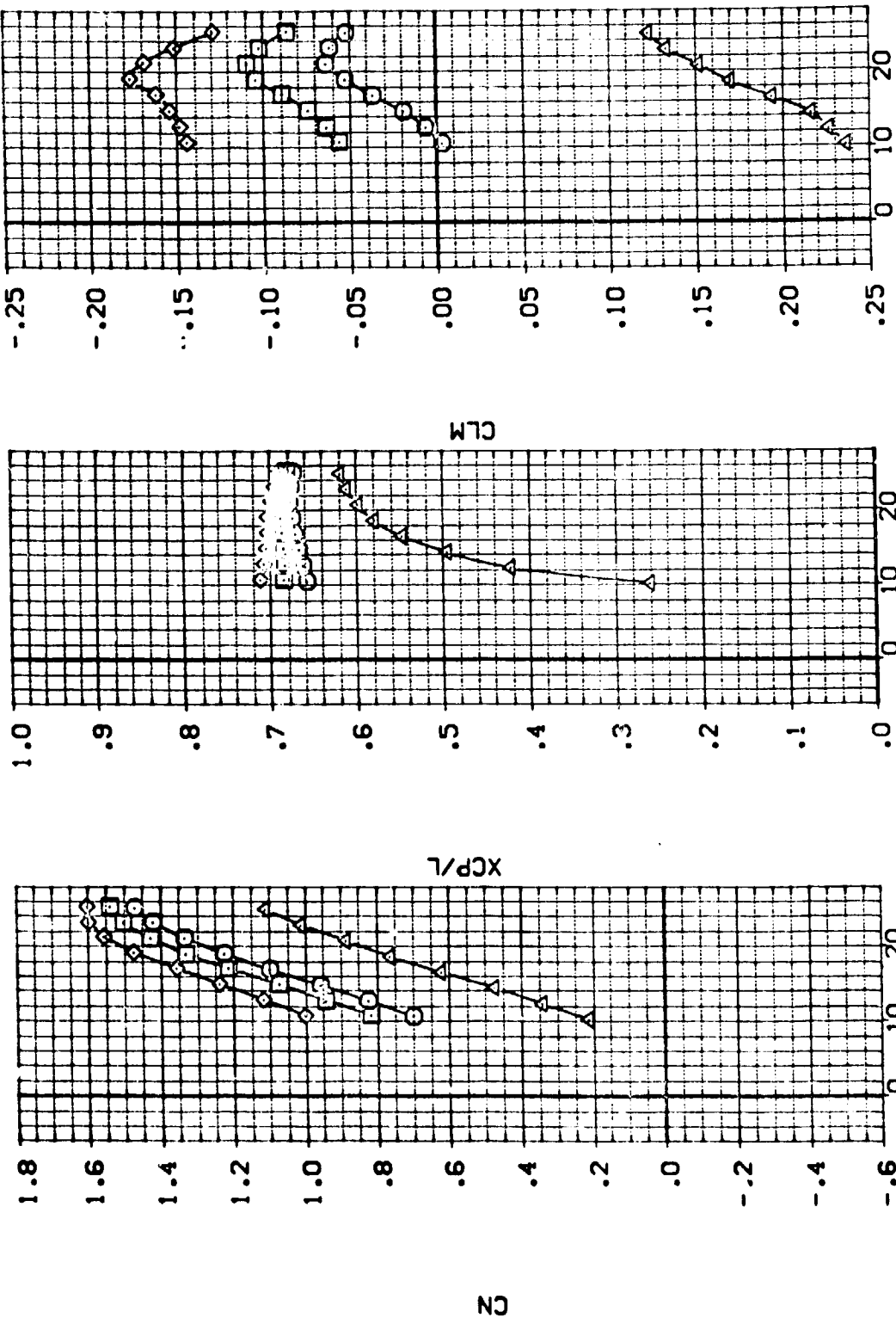


ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=209.0 INCHES

(A)MACH = .16

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DATA SET 57300	CONFIGURATION DESCRIPTION	CO-POS	ELEVON	NACVL	LIP	REFERENCE INFORMATION
(ADK231)	NR.701.0405 008 B.80507E 12312-37E18VX10+0P	209.000	.000	.000	4.000	SREF 4.4119 50.17
(ADK230)	NR.701.0405 008 B.80507E 12312-37E18VX10+0P	209.000	5.000	.000	4.000	UREF 19.2998 IN-ES
(ADK229)	NR.701.0405 008 B.80507E 12312-37E18VX10+0P	209.000	15.000	.000	4.000	BREF 37.5319 IN-ES
(ADK228)	NR.701.0405 008 B.80507E 12312-37E18VX10+0P	209.000	-20.000	.000	4.000	XREF 43.5974 IN-ES
						YREF 16.0000 IN-ES
						ZREF 16.2000 IN-ES
						SCALE .0405



DATA SET SYMBOL

(AUG231)  
 (AUG230)  
 (AUG229)  
 (AUG228)

CONFIGURATION DESCRIPTION

NR.701.0405 098 8165307F 1J3312V87E 18V5X10+GP  
 NR.701.0405 098 8165307F 1J3312V87E 18V5X10+GP  
 NR.701.0405 098 8165307F 1J3312V87E 18V5X10+GP  
 NR.701.0405 098 8165307F 1J3312V87E 18V5X10+GP

GP-PDS

209.000  
 209.000  
 209.000  
 209.000

ELEVON

.000  
 .000  
 .000  
 .000

NACVAL

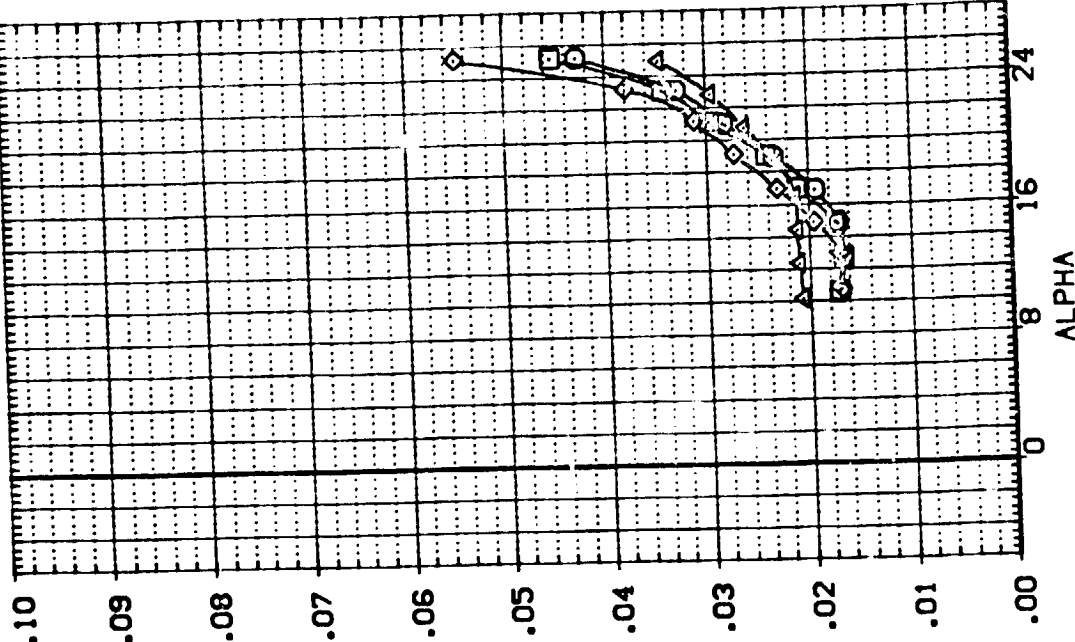
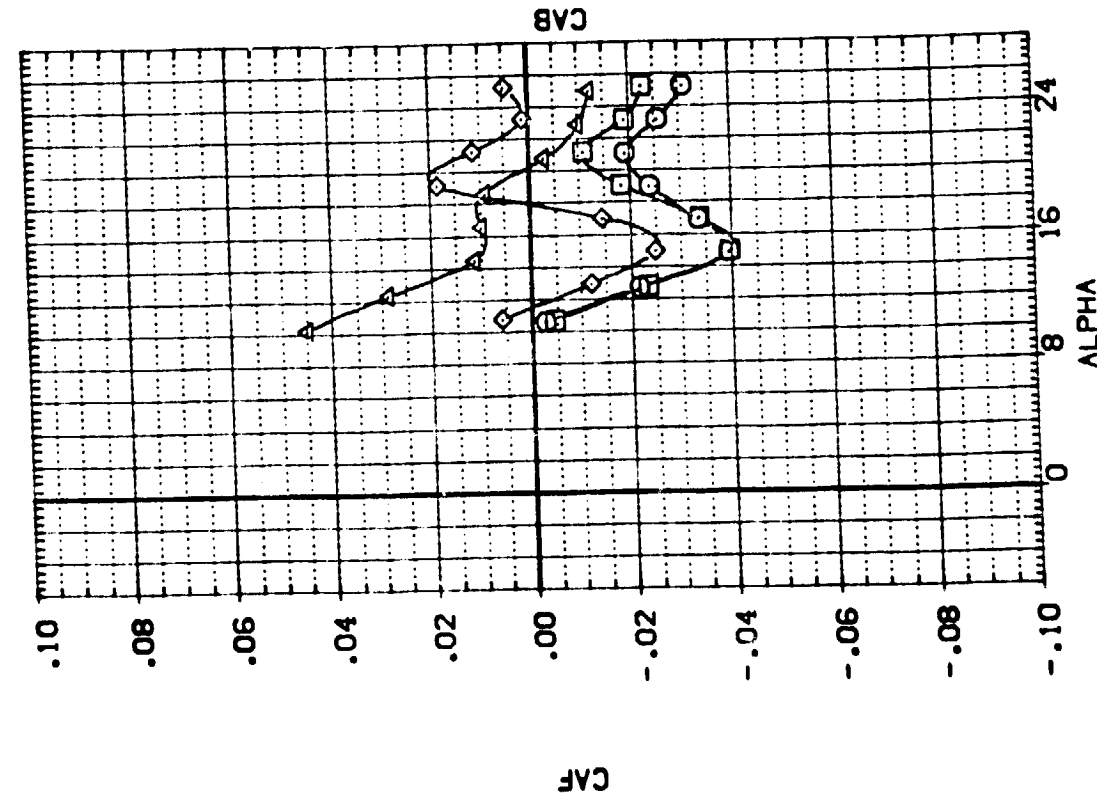
.000  
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 .000

LIP

4.000  
 4.000  
 4.000  
 4.000

REFERENCE INFORMATION

SREF 4.4119 SQ.FT.  
 LREF 19.2959 IN-ES  
 BREF 37.9349 IN-ES  
 XREF 43.5974 IN-ES  
 YREF .0000 IN-ES  
 ZREF 15.2000 IN-ES  
 SCALE .0405

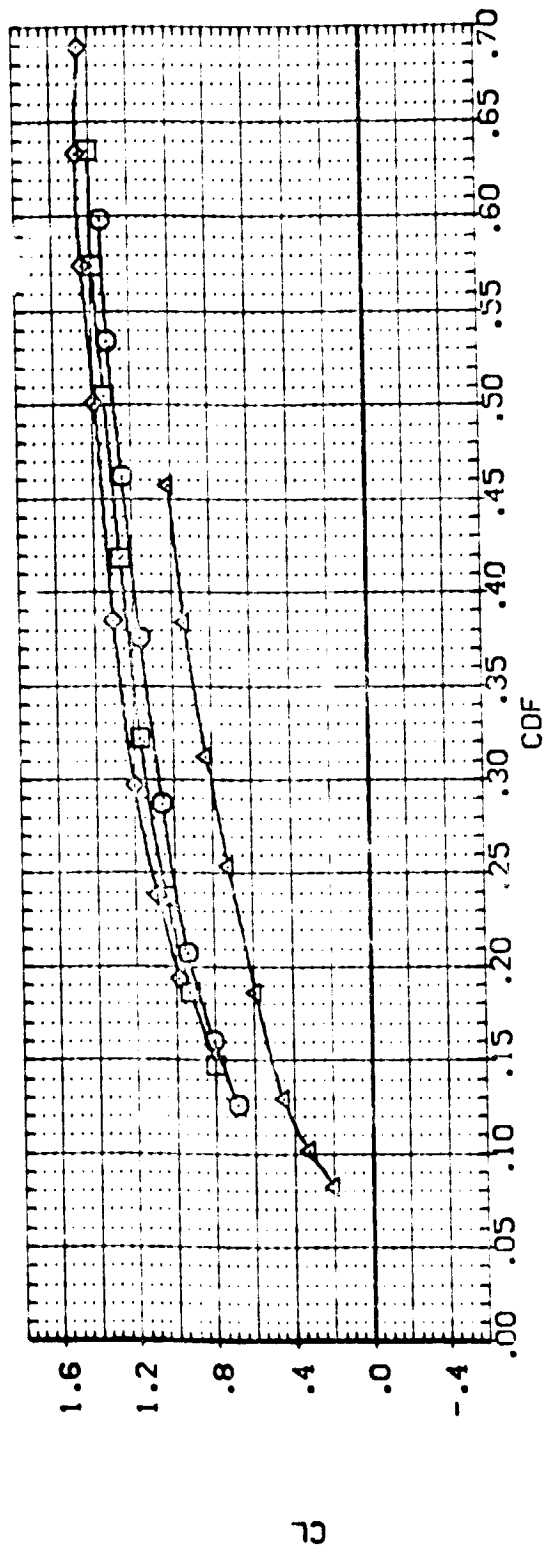
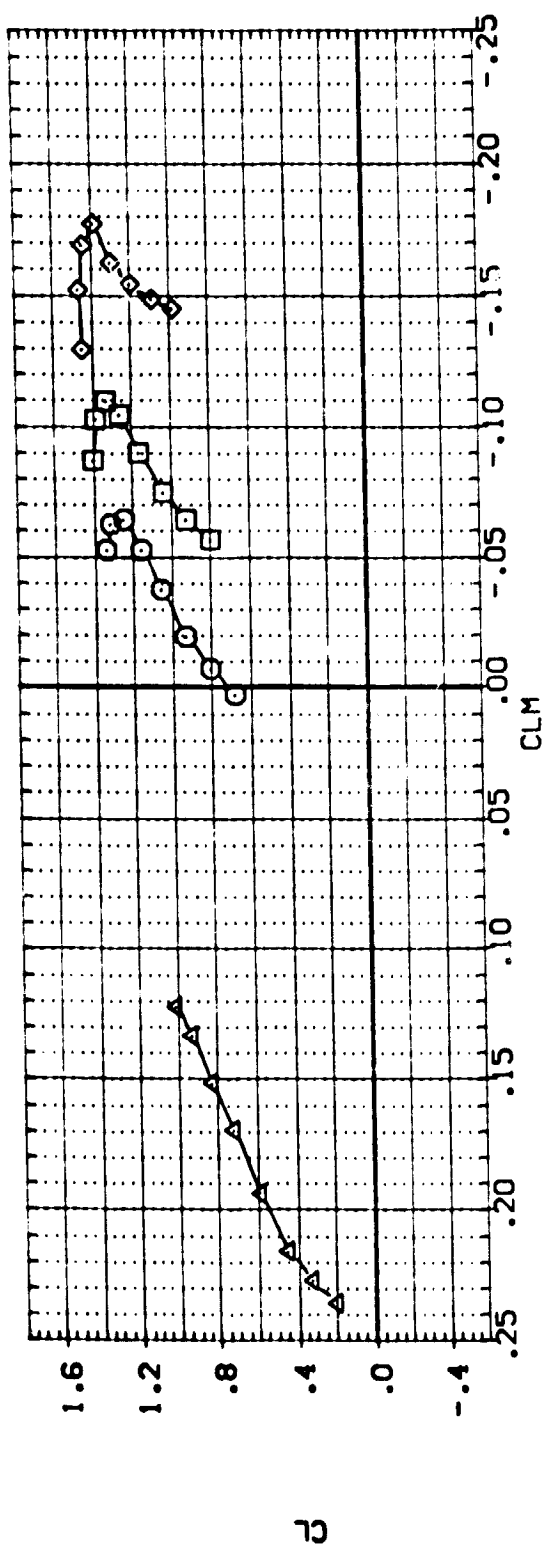


ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=209.0 INCHES

(A)MACH = .16

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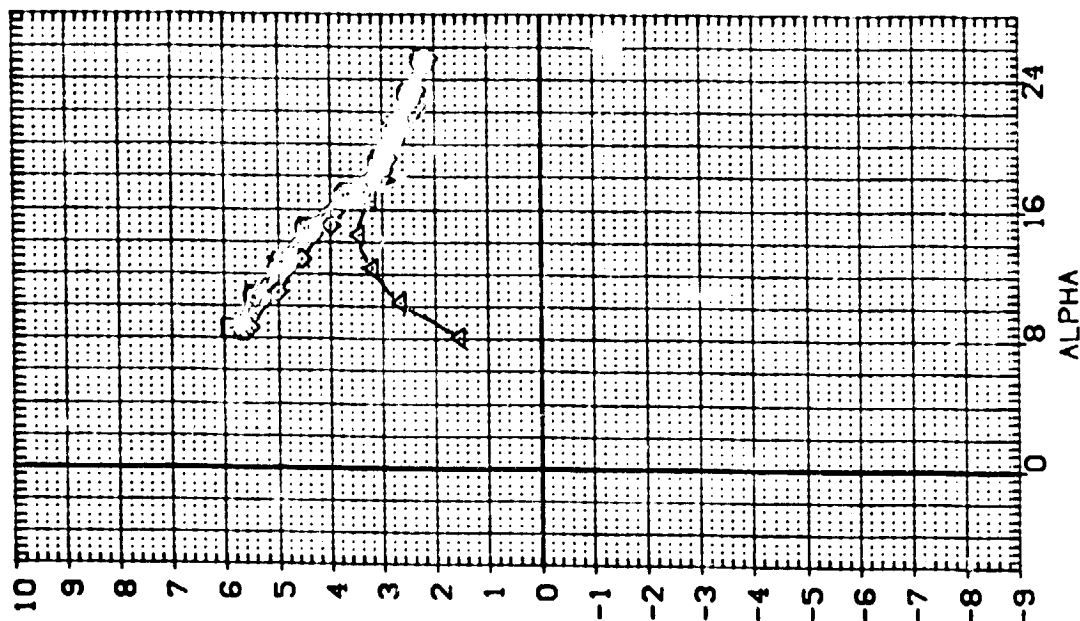
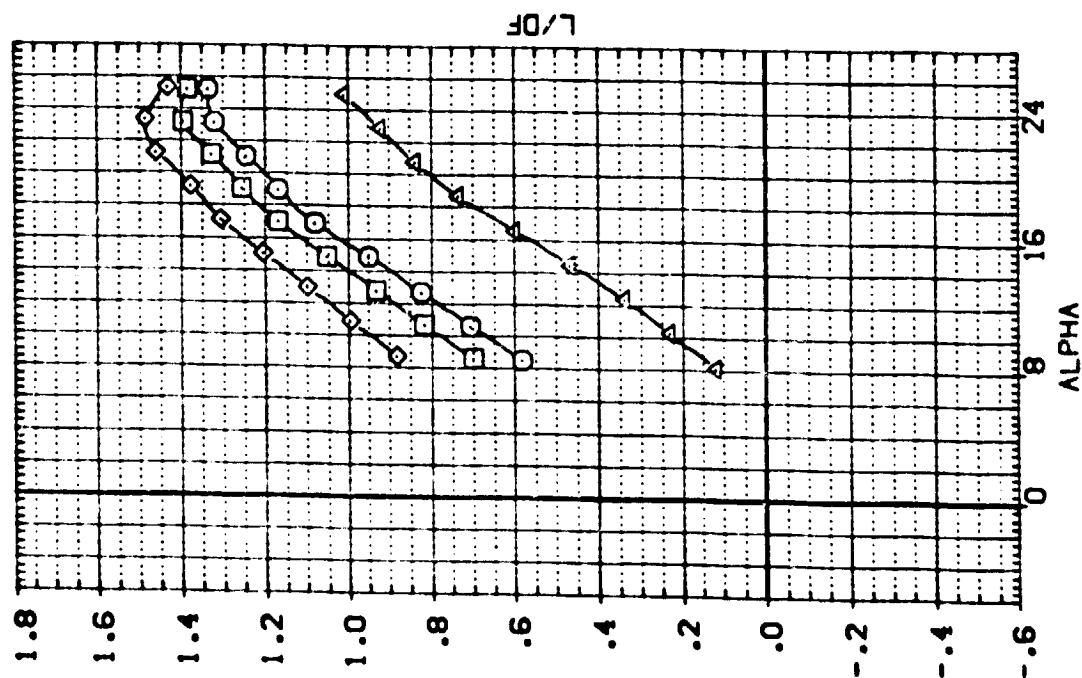
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	UP-PCS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
(AD4231)	NR.701.0405 073 B16C307F13312487E105X10+GP	209.000	.000	.000	4.000	SREF 4.4119 50 FT.
(AD4230)	NR.701.0405 073 B16C307F13312487E105X10+GP	209.000	.000	.000	4.000	UREF 19.2333 INCHES
(AD4229)	NR.701.0405 073 B16C307F13312487E105X10+GP	209.000	5.000	.000	4.000	BREF 37.6549 INCHES
(AD4228)	NR.701.0405 073 B16C307F13312487E105X10+GP	209.000	-20.000	.000	4.000	YREF 43.5374 INCHES
						ZREF 16.2000 INCHES
						SCALE .0105 SCALE



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=209.0 INCHES  
 (AD)MACH = .16  
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(AD254)	MR. 701. 0405	088	816C507E	1561	2467E18V510+0P
(AD252)	MR. 701. 0405	088	816C507E	1561	2467E18V510+0P
(AD251)	MR. 701. 0405	088	816C507E	1561	2467E18V510+0P
(AD253)	MR. 701. 0405	088	816C507E	1561	2467E18V510+0P

Q-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION	SO. FT.
209.000	.000	.000	4.000	SREF	4.4119
209.000	.000	.000	4.000	LRD	19.2039
209.000	5.000	.000	4.000	BRD	37.5349
209.000	15.000	.000	4.000	XPR	43.5874
209.000	-20.000	.000	4.000	YPR	.0000
				ZPR	16.2000
				SCALE	.0405



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=209.0 INCHES

$$C_A)_{MACH} = .16$$

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DATA SET 5: 160L CONFIGURATION DESCRIPTION

NAME	UNIT	DESCRIPTION	UNIT	DESCRIPTION
NR.701.0405	078	BI SC 507E	1556	2407NAXIC-CP
NR.701.0405	078	BI SC 507E	1556	2407E18VXIC-CP
NR.701.0405	078	BI SC 507E	1556	2407E18VXIC-CP
NR.701.0405	078	BI SC 507E	1556	2407E18VXIC-CP
NR.701.0405	078	BI SC 507E	1556	2407E18VXIC-CP
NR.701.0405	078	BI SC 507E	1556	2407E18VXIC-CP

REFERENCE INFORMATION

NAME	UNIT	DESCRIPTION	UNIT	DESCRIPTION
SRF	1.4119	50. FT.		
LRF	19.239	INCHES		
BSF	27.5019	INCHES		
XREF	43.5074	INCHES		
YREF	16.000	INCHES		
ZREF	16.000	INCHES		
SCALE	1.005	SCALE		

UP-FVS ELEVON

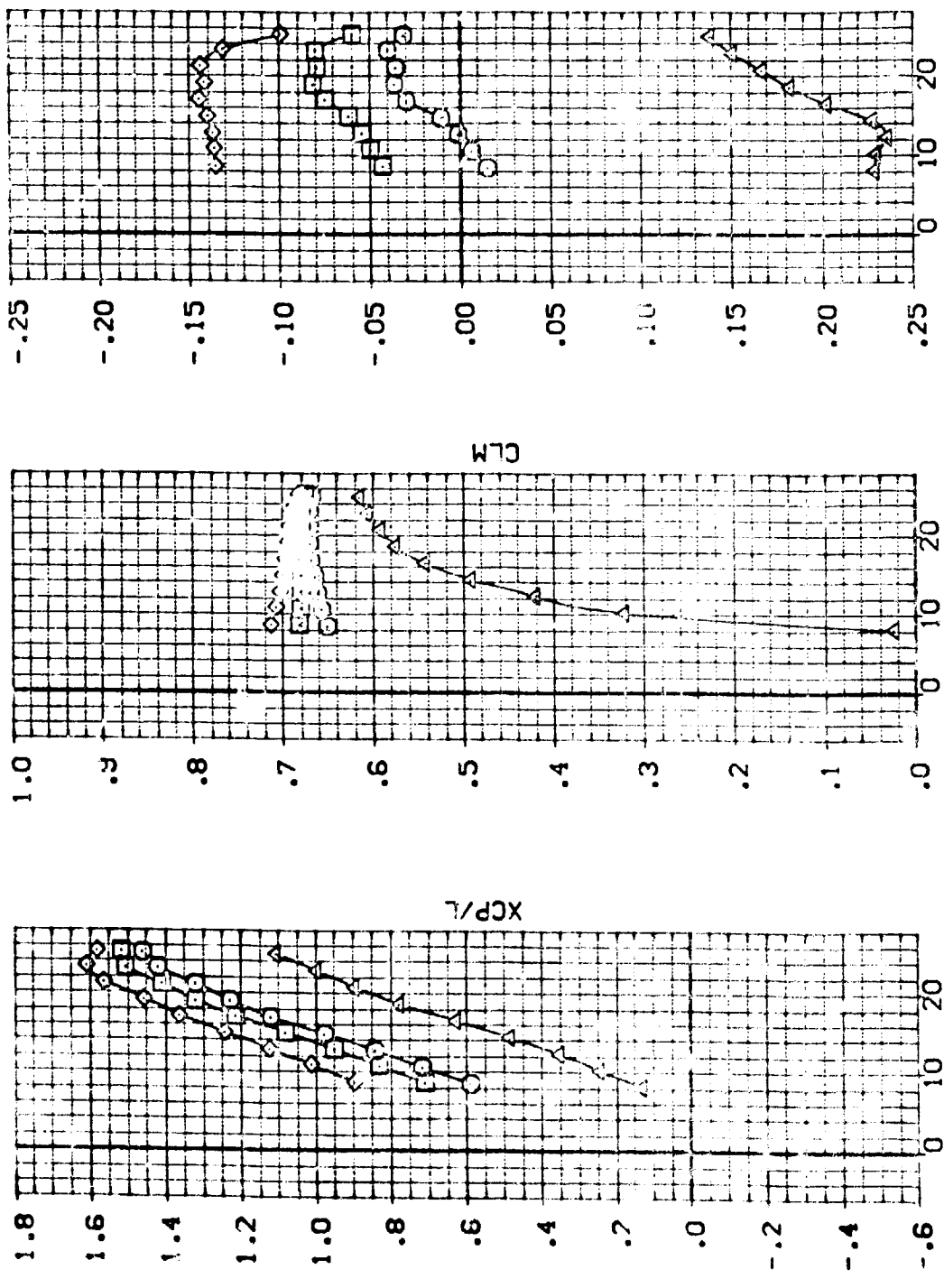
NAME	UNIT	DESCRIPTION	UNIT	DESCRIPTION
209.000	000			
209.000	5.000			
209.000	15.000			
209.000	-20.000			

LIP

NAME	UNIT	DESCRIPTION	UNIT	DESCRIPTION
4.000	000			
4.000	000			
4.000	000			
4.000	000			

NAXAL

NAME	UNIT	DESCRIPTION	UNIT	DESCRIPTION
1.000	000			
1.000	000			
1.000	000			
1.000	000			



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=209.0 INCHES

(A)MACH = .16

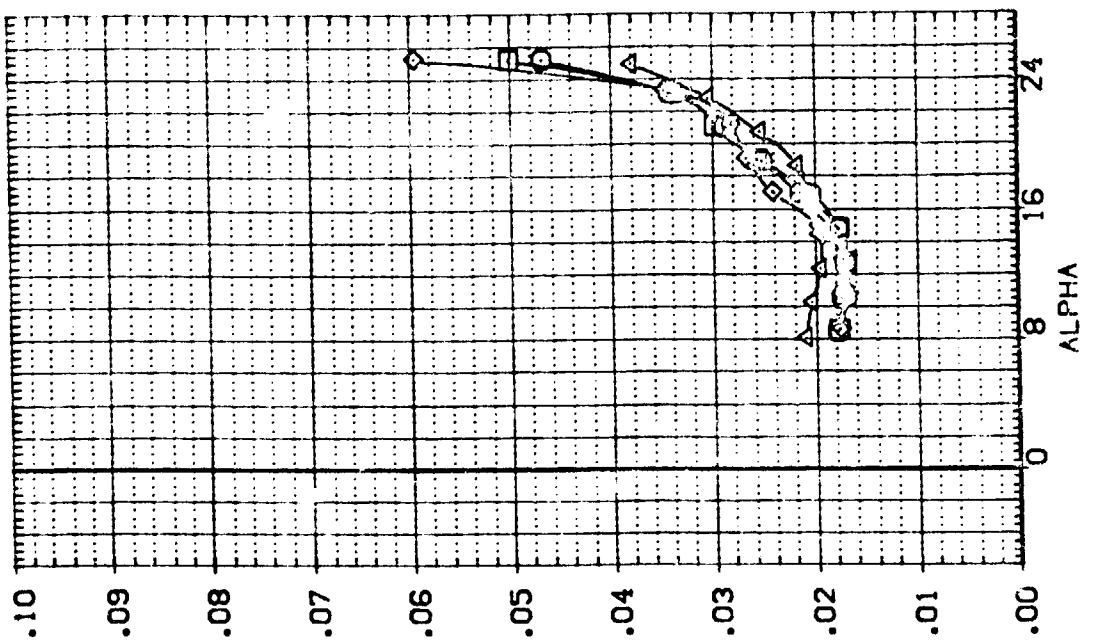
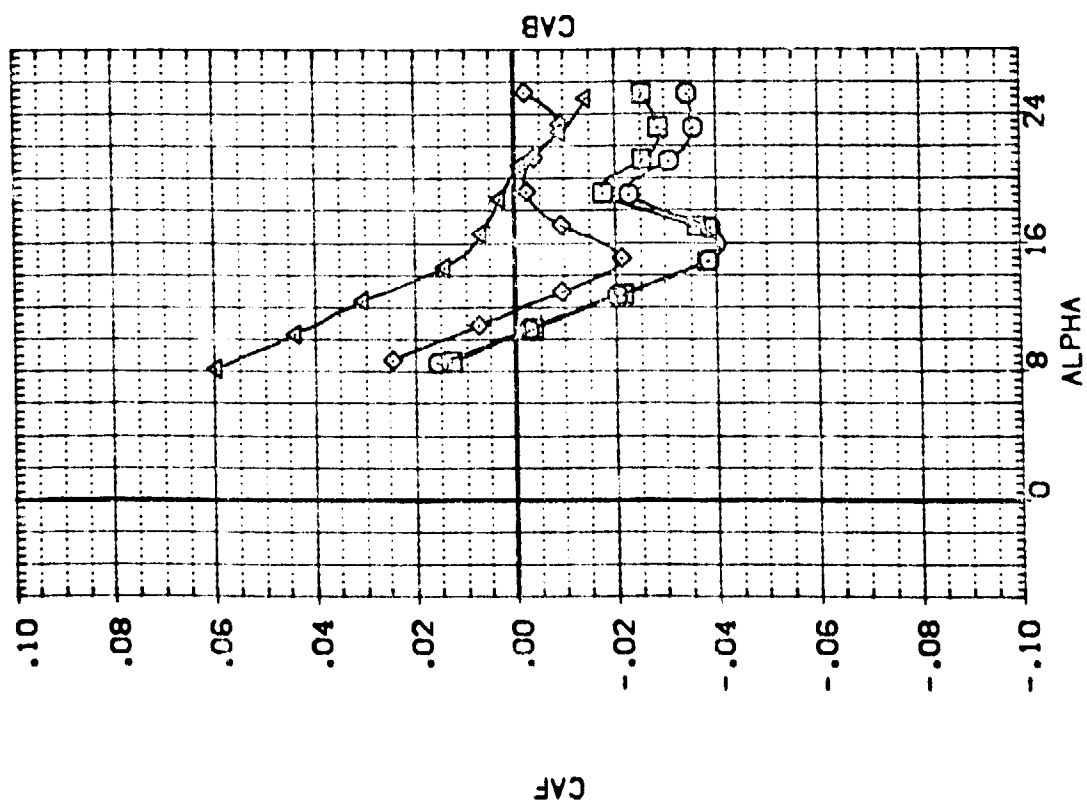
PAGE 199

DATA SET SYMBOL

CONFIGURATION DESCRIPTION

NR. 701.0405 058 818507F 175G12487E18V3X10+GP  
 NR. 701.0405 058 818507F 175G12487E18V3X10+GP  
 NR. 701.0405 058 818507F 175G12487E18V3X10+GP  
 NR. 701.0405 058 818507F 175G12487E18V3X10+GP

GP-PSS ELEVON NACVAL LIP REFERENCE INFORMATION  
 209.000 0.000 4.000 SREF 4.4119 50.FT.  
 209.000 5.000 4.000 LREF 19.7989 IN-ES  
 209.000 15.000 4.000 BREF 37.9349 IN-ES  
 209.000 -20.000 4.000 XREF 43.5974 IN-ES  
 209.000 0.000 4.000 YREF 16.2000 IN-ES  
 209.000 0.000 4.000 ZREF 16.2000 IN-ES  
 209.000 0.000 4.000 SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(S NACELLES) HGT. ABOVE GRND=209.0 INCHES  
 (A)MACH = .16  
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DATA SET SYMBOL      CONFIGURATION DESCRIPTION      GP-POS      ELEVON      NACAL      LIP      REFERENCE INFORMATION      SQ.FT. INCHES

(AD-291)      NR.701.0405 DB8 B165507F1J5612487E16V5X10+GP      209.000      0.000      .000      4.000      SREF      4.4119      50.4119

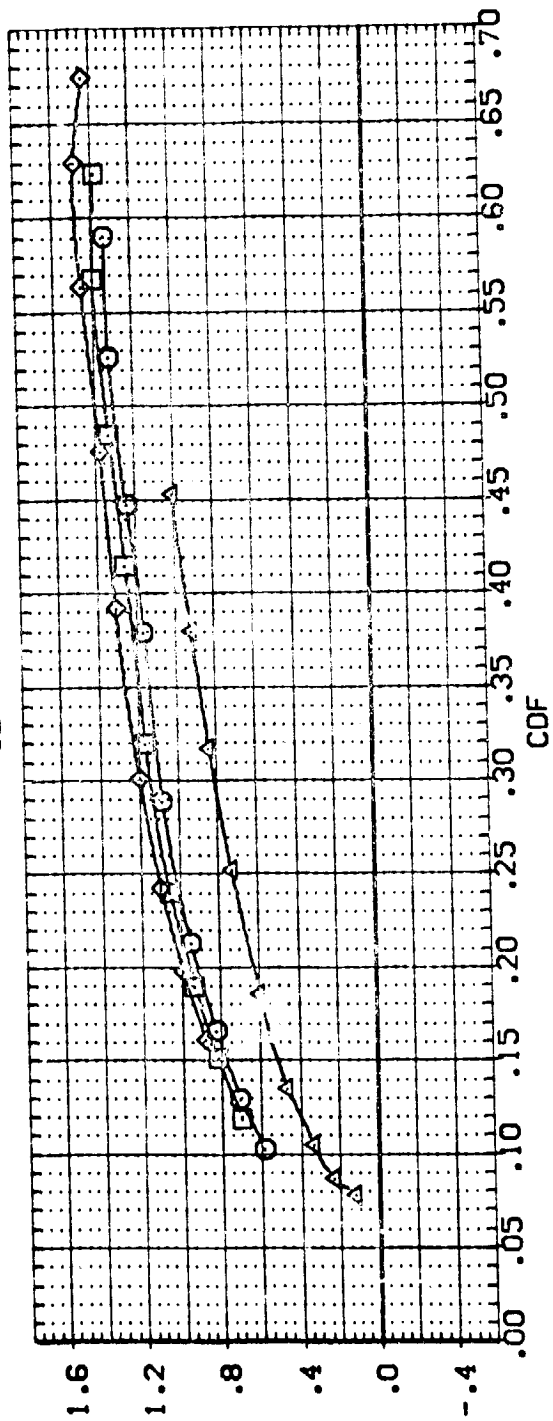
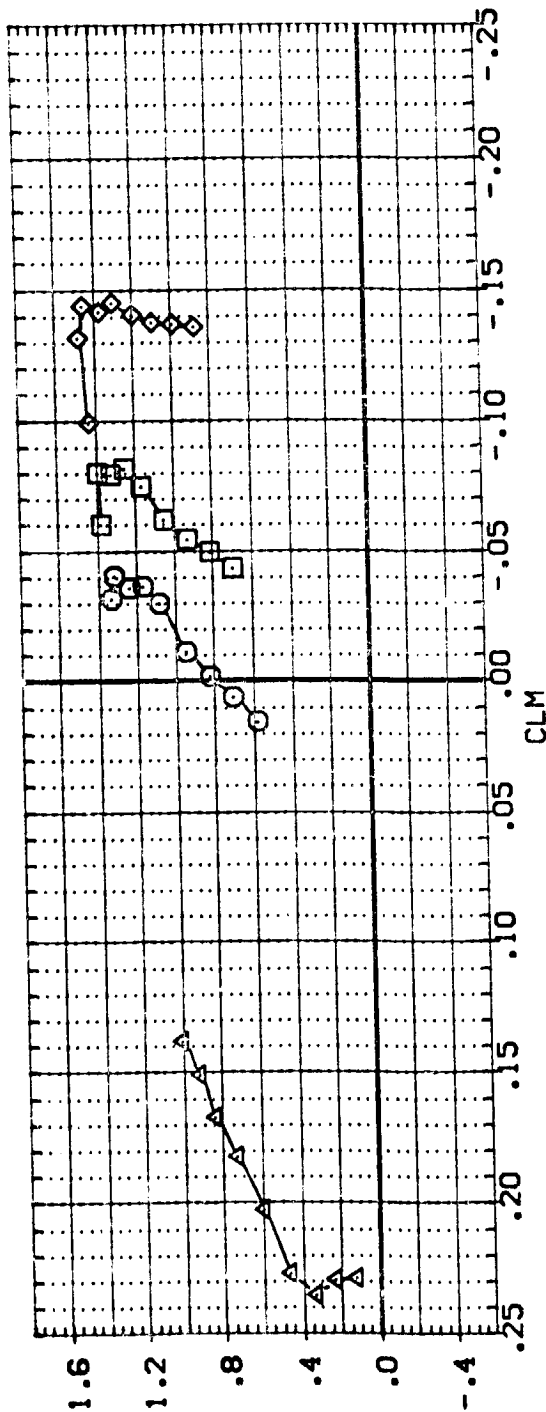
(AD-292)      NR.701.0405 DB8 B165507F1J5612487E16V5X10+GP      209.000      5.000      .000      4.000      LREF      19.2979      19.2979

(AD-293)      NR.701.0405 DB8 B165507F1J5612487E16V5X10+GP      209.000      15.000      .000      4.000      EREF      37.5349      37.5349

(AD-294)      NR.701.0405 DB8 B165507F1J5612487E16V5X10+GP      209.000      -20.000      .000      4.000      YREF      43.5374      43.5374

(AD-295)      NR.701.0405 DB8 B165507F1J5612487E16V5X10+GP      209.000                          ZREF      16.2000      16.2000

(AD-296)      NR.701.0405 DB8 B165507F1J5612487E16V5X10+GP      209.000                          SCALE      .0405      .0405



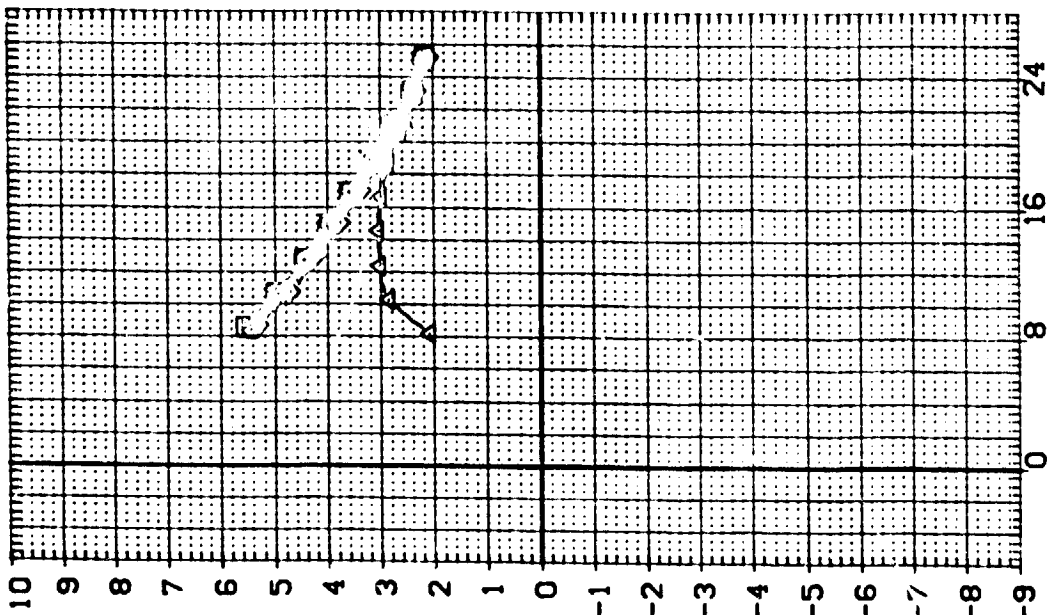
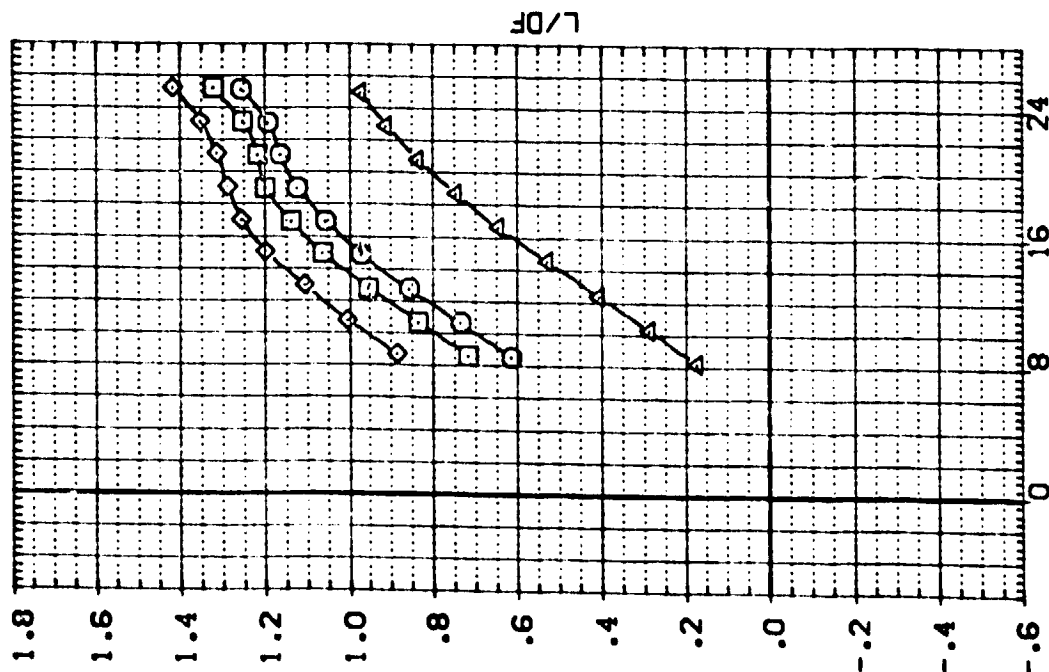
ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=209.0 INCHES

# DATA SET SYMBOL

(ADG10)  
(ADG11)  
(ADG12)  
(ADG13)

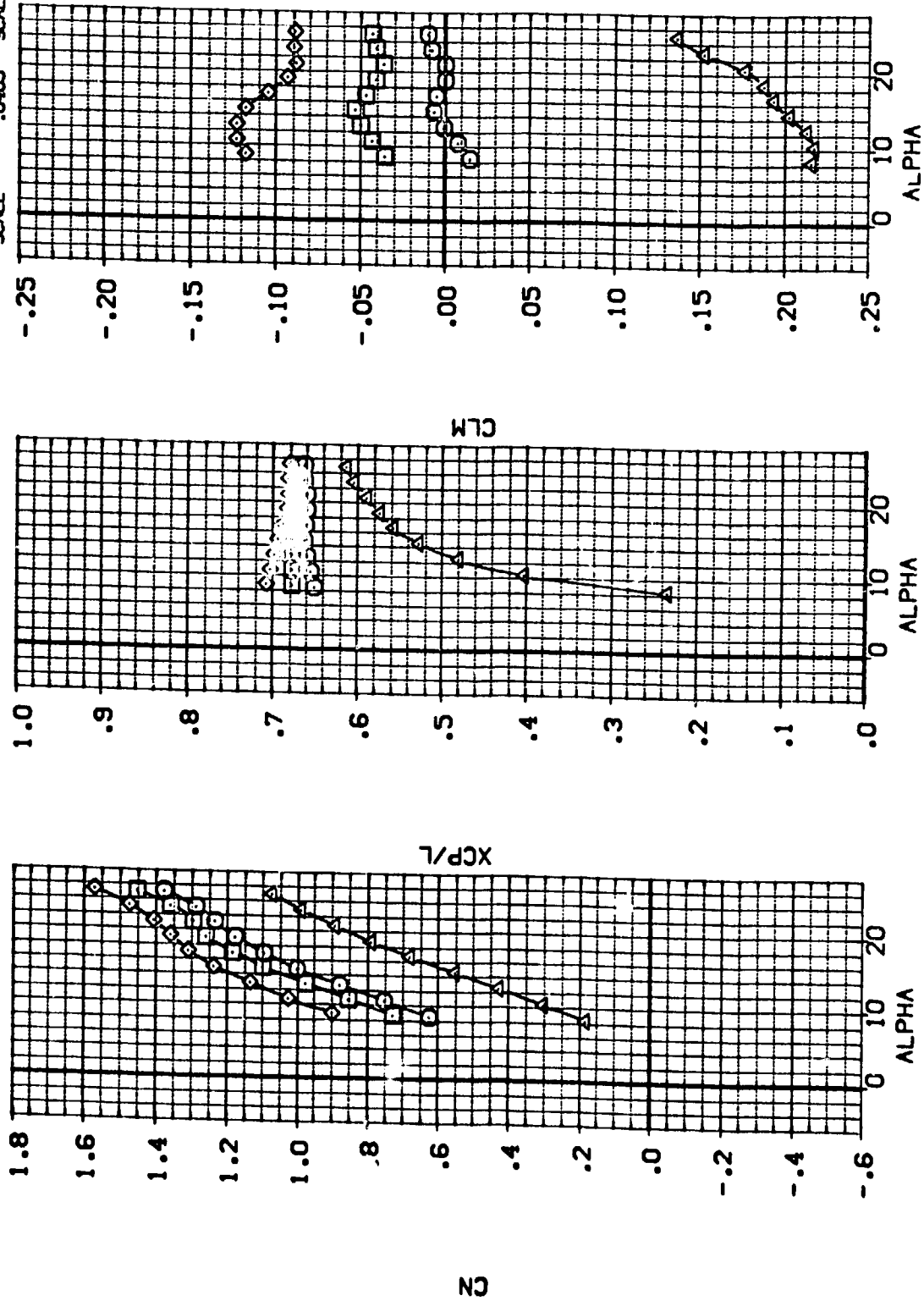
CP-5 I GURATION DESCRIPTION  
NR.701.0405 038 816C507F 177612487V5X10+GP  
NR.701.0405 038 816C507F 177612487E18V5X10+GP  
NR.701.0405 038 816C507F 177612487E18V5X10+GP  
NR.701.0405 038 816C507F 177612487E18V5X10+GP

GP-POS ELEVON NACVL LIP REFERENCE INFORMATION  
209.000 .000 4.000 SREF 4.4119 50.FT.  
209.000 5.000 4.000 LREF 19.2998 INCHES  
209.000 15.000 4.000 BREF 37.9349 INCHES  
209.000 -20.000 4.000 XTRP 43.5974 INCHES  
YTRP .0000 INCHES  
ZTRP 16.2000 INCHES  
SCALE .0405 SCALE



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH , HGT. ABOVE GRND=209.0 INCHES  
(A)MACH = .16  
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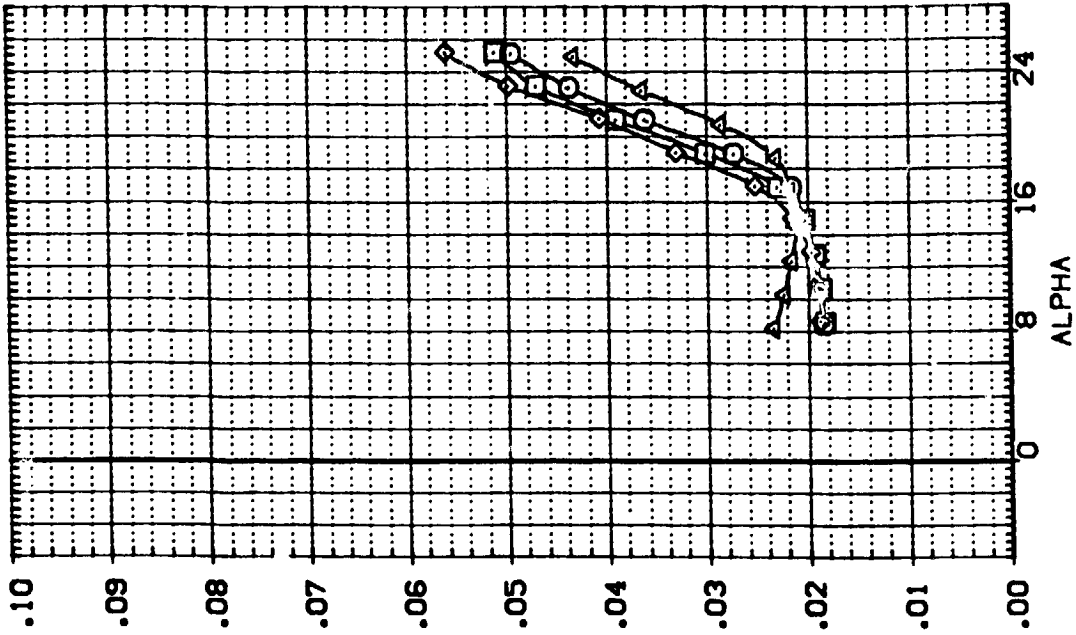
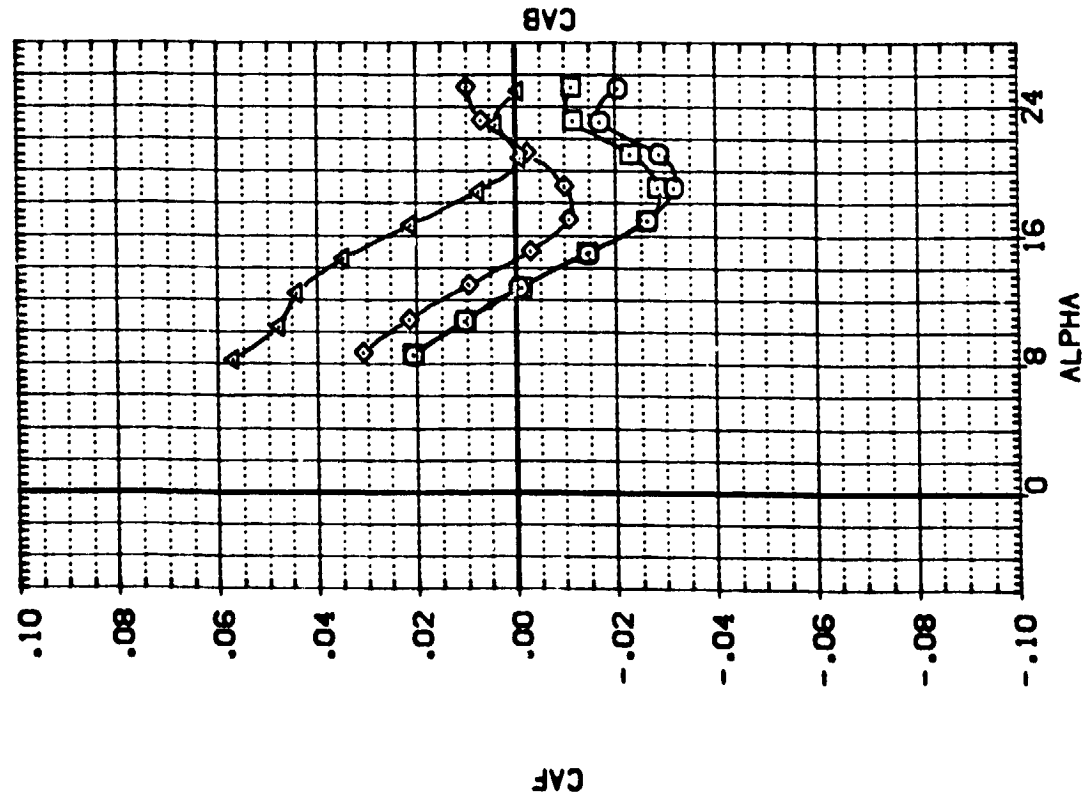
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP POS	ELEVATION	NAC/L	LIP	REFERENCE INFORMATION
(ADNG10)	NR.701.0405 Q88 B16C507F 147612487E18V5X10+GP	209.000	.000	.000	4.000	SREF 4.4119 SO.FT.
(ADNG11)	NR.701.0405 Q88 B16C507F 147612487E18V5X10+GP	209.000	.000	.000	4.000	LREF 19.2569 INCHES
(ADNG12)	NR.701.0405 Q88 B16C507F 147612487E18V5X10+GP	209.000	5.000	.000	4.000	BREF 37.9349 INCHES
(ADNG13)	NR.701.0405 Q88 B16C507F 147612487E18V5X10+GP	209.000	15.000	.000	4.000	XREF 43.5974 INCHES
			-20.000			YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND=209.0 INCHES

(A)MACH = .16

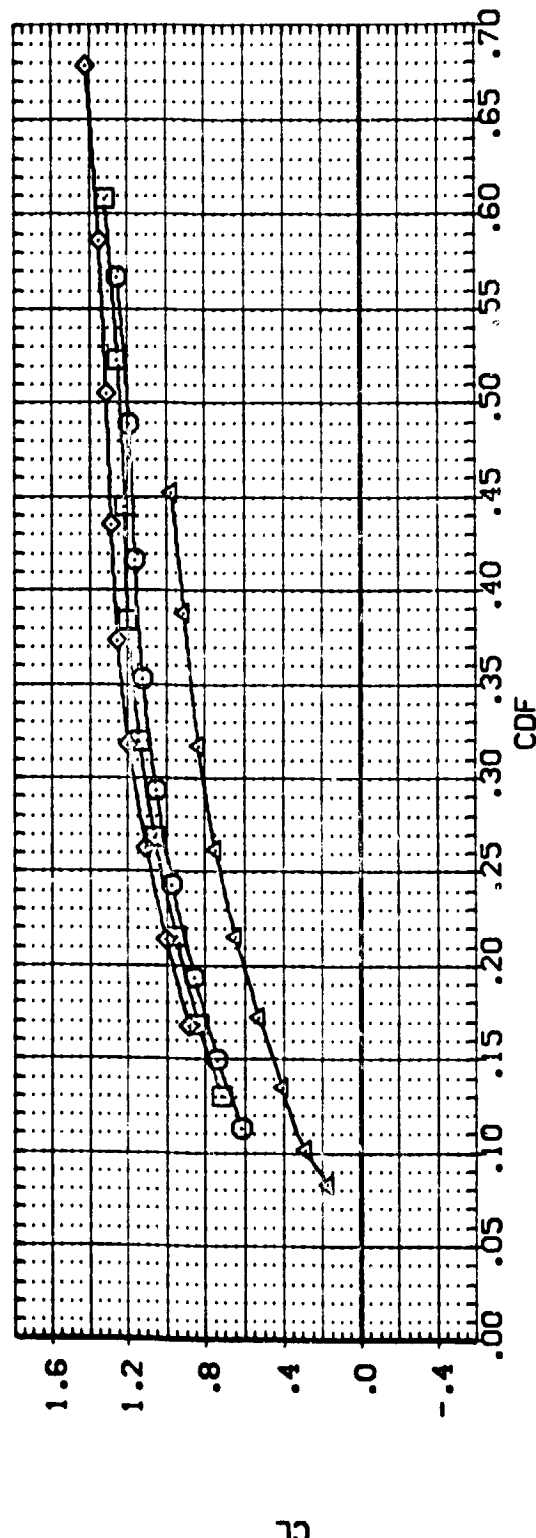
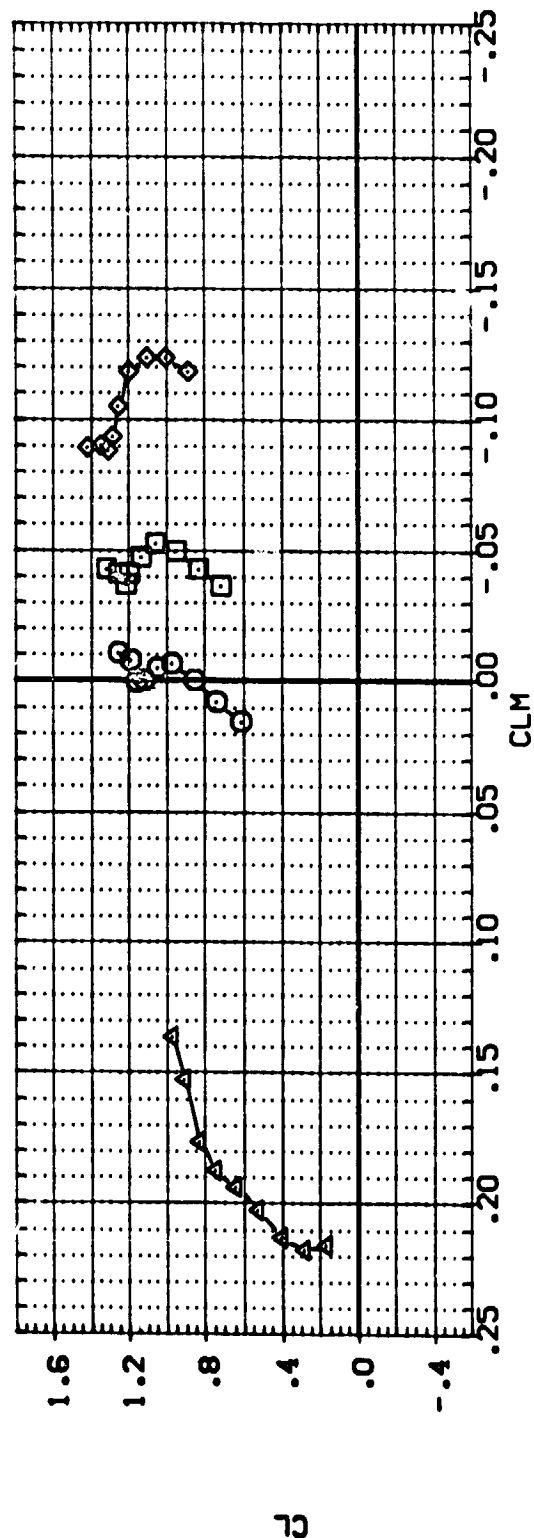
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
[ADG10]	N6.701.0405 088 816C507F 1J7G12467E18V5X10+GP	209.000	.000	.000	4.000	SREF 4.4119 SO.FT.
[ADG11]	N6.701.0405 088 816C507F 1J7G12467E18V5X10+GP	209.000	.000	.000	4.000	LREF 19.2939 INO-ES
[ADG12]	N6.701.0405 088 816C507F 1J7G12467E18V5X10+GP	209.000	.000	.000	4.000	BREF 37.5349 INO-ES
[ADG13]	N6.701.0405 088 816C507F 1J7G12467E18V5X10+GP	209.000	.000	.000	4.000	XREF 43.5974 INO-ES
						ZREF 16.2000 INO-ES
						SCALE .0405



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH , HGT. ABOVE GRND=209.0 INCHES

(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRND	ELEVON	NACVL	LIP	REFERENCE INFORMATION
(ADG10)	NR.701.0405 C-3 B16C507F1J701233718VX10+GP	209.000	.000	.000	4.000	SREF 4.4119 50.FT
(ADG11)	NR.701.0405 C-3 B16C507F1J701233718VX10+GP	209.000	.000	.000	4.000	LREF 19.2899 INCHES
(ADG12)	NR.701.0405 C-3 B16C507F1J701233718VX10+GP	209.000	5.000	.000	4.000	BREF 37.9349 INCHES
(ADG13)	NR.701.0405 C-3 B16C507F1J701233718VX10+GP	209.000	-20.000	.000	4.000	XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH , HGT. ABOVE GRND=209.0 INCHES

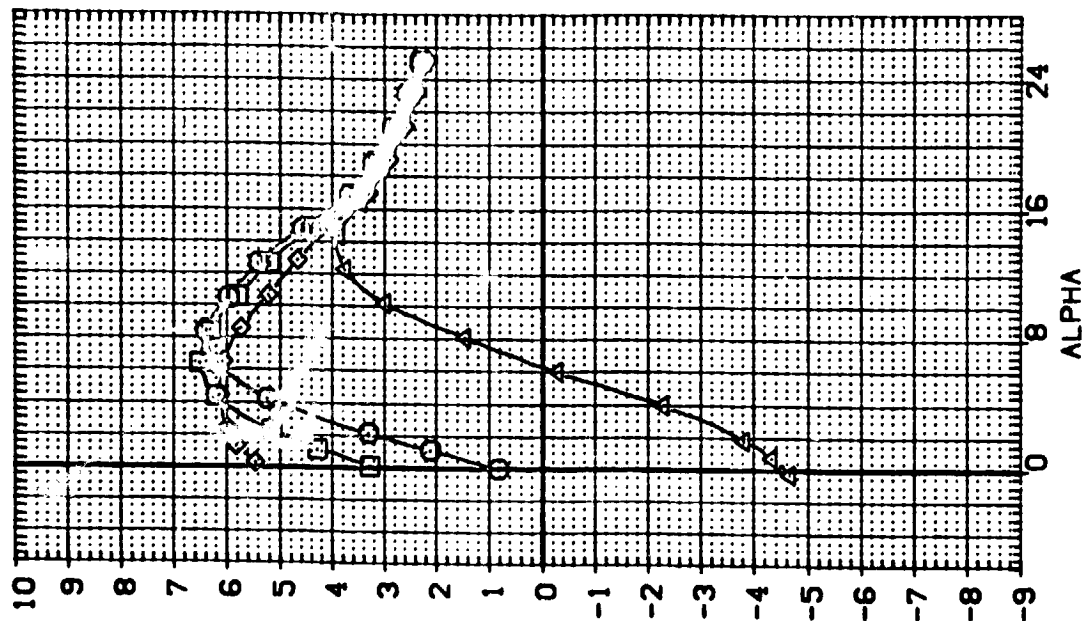
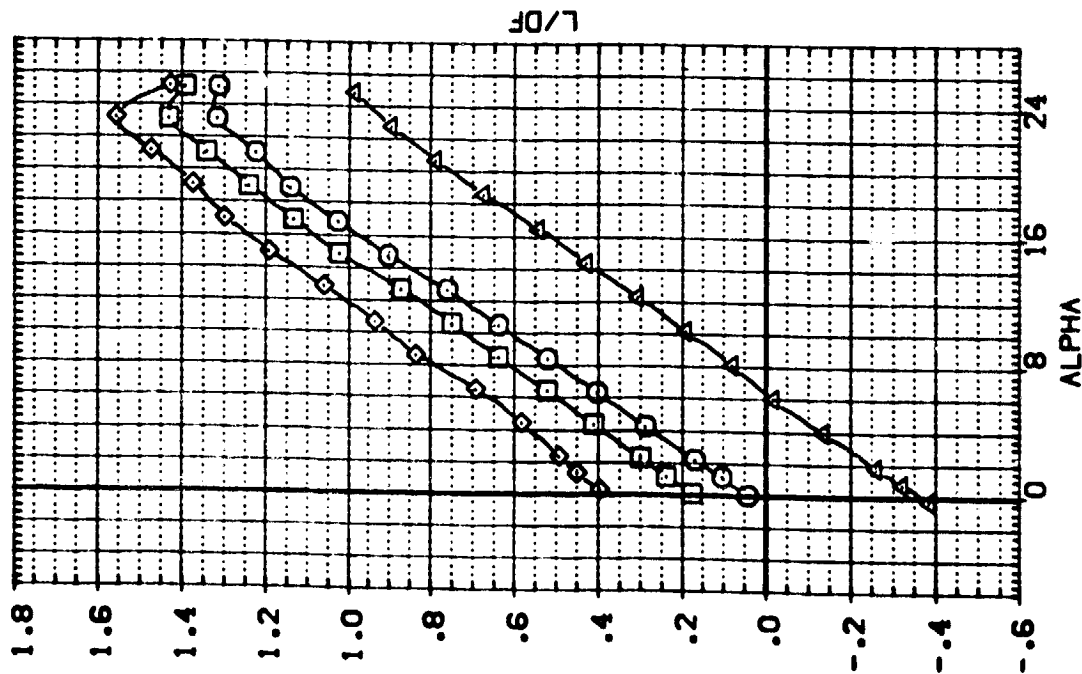
(A)MACH = .16

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# DATA SET SYMBL. CONFIGURATION DESCRIPTION

(FDQ243) NR.701.0405 DB8 B16C507F 1612487E 18V5X9+GP  
 (FDQ242) NR.701.0405 DB8 B16C507F 1612487E 18V5X9+GP  
 (FDQ241) NR.701.0405 DB8 B16C507F 1612487E 18V5X9+GP  
 (FDQ240) NR.701.0405 DB8 B16C507F 1612487E 18V5X9+GP

GP-POS ELEVON NACA/L LIP REFERENCE INFORMATION SQ.FT.  
 199.000 .000 4.000 SREF 4.4119 IN-ES  
 199.000 5.000 4.000 LREF 19.2999 IN-ES  
 199.000 15.000 4.000 BREF 37.9349 IN-ES  
 199.000 -20.000 4.000 XTRP 43.5974 IN-ES  
 YTRP 0.000 IN-ES  
 ZTRP 16.2000 IN-ES  
 SCALE .0405 IN-ES



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 159.0 INCHES

(A)MACH = .16



# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(FDQ43) NR.701.0405 03 816507F 1612487E 18V59+0P  
 (FDQ42) NR.701.0405 03 816507F 1612487E 18V59+0P  
 (FDQ41) NR.701.0405 03 816507F 1612487E 18V59+0P  
 (FDQ40) NR.701.0405 03 816507F 1612487E 18V59+0P

# REFERENCE INFORMATION

SREF 4.4119 50.FT INCHES  
 LREF 19.2539 INCHES  
 BREF 37.5339 INCHES  
 XREF 43.5374 INCHES  
 YREF .0000 INCHES  
 ZREF 16.2000 INCHES  
 SCALE .0405 INCHES

# LIP

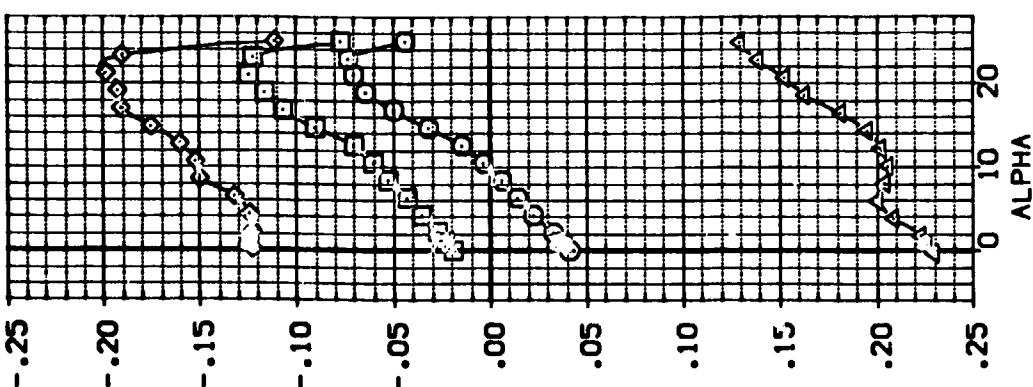
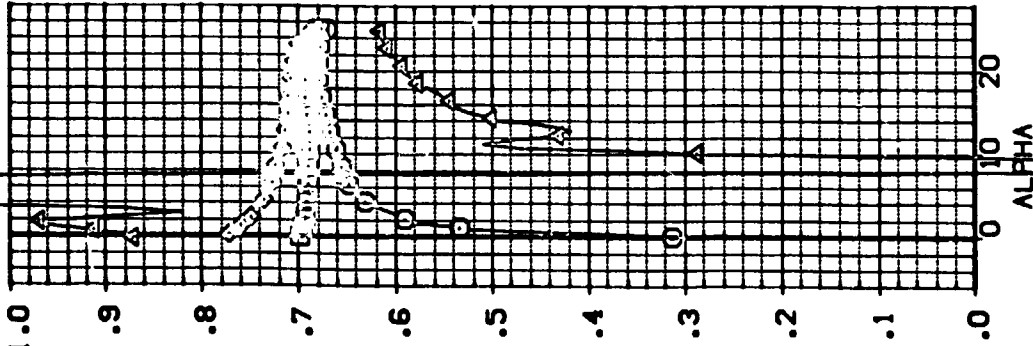
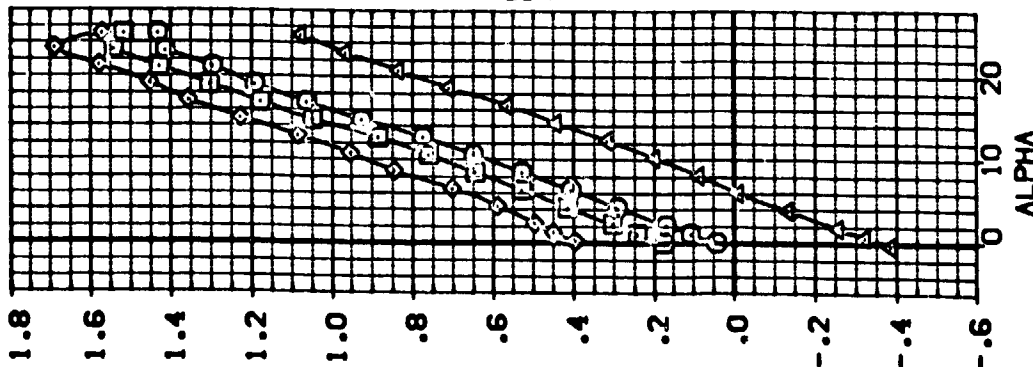
MACUL 4.000  
 .000  
 .000  
 .000  
 .000

# ELEVON

159.000  
 159.000  
 159.000  
 159.000  
 159.000

# SP-POS

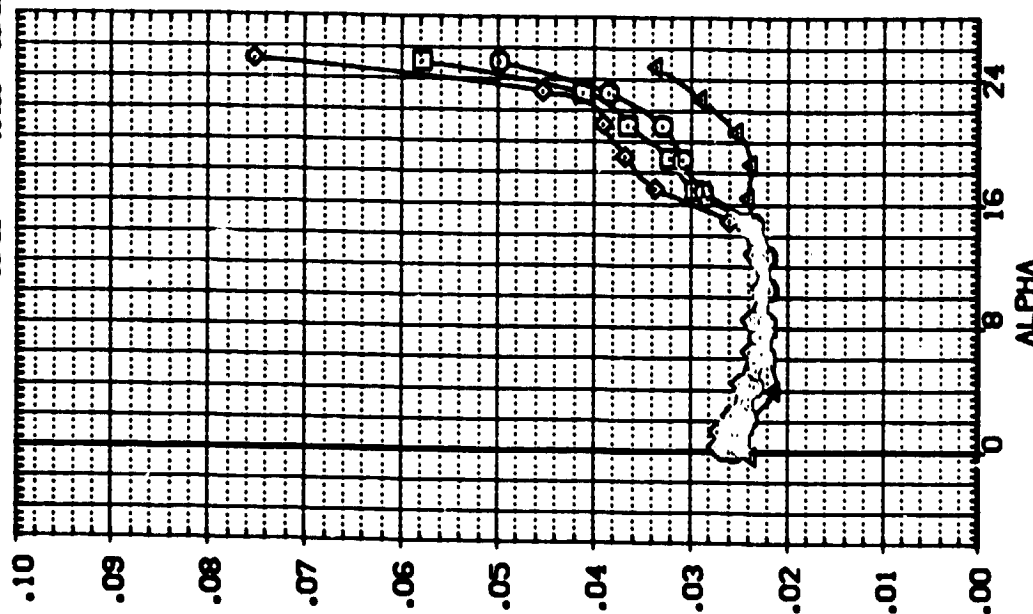
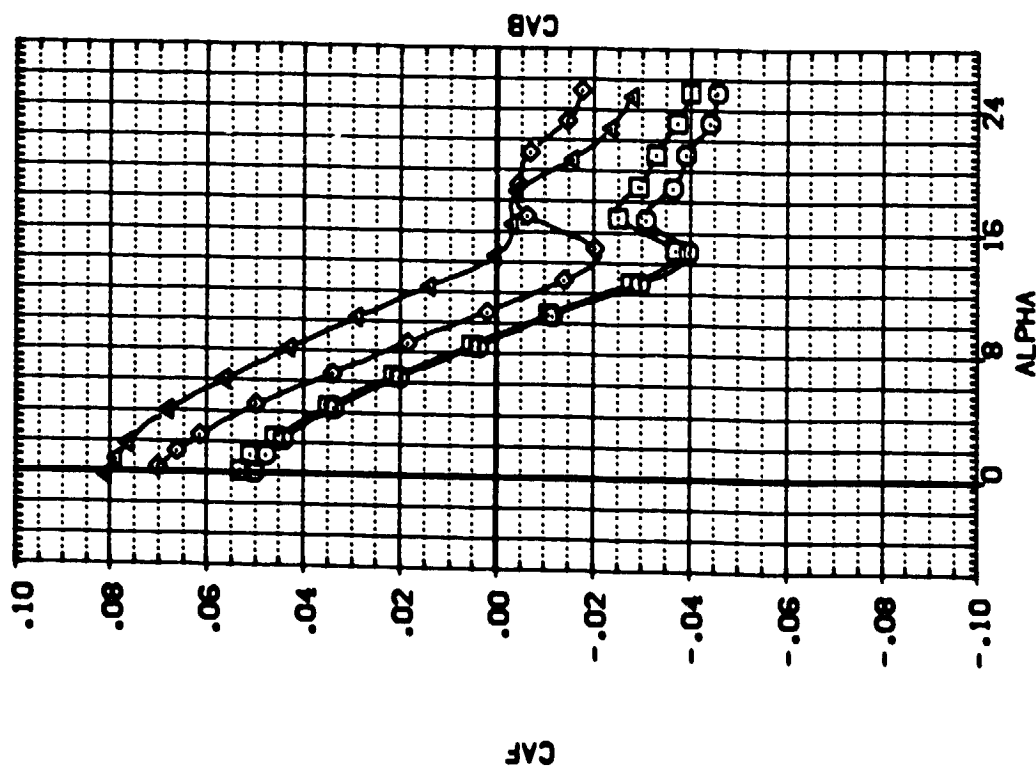
159.000  
 159.000  
 159.000  
 159.000  
 159.000



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 159.0 INCHES

(A)MACH = .16

6'-FOS	ELEV	MOUL	LIP	REFERENCE INFORMATION
159.000	-00.00	4.000	REF	4.4119
159.000	-00.00	4.000	REF	19.2559
159.000	5.00	4.000	REF	37.5043
159.000	15.00	4.000	REF	43.5974
159.000	-20.00	4.000	REF	0.0000
			REF	0.0000
			REF	16.2000
			REF	0.0000
			SCALE	-0.005
			SCALE	SCALE



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 159.0 INCHES

$$C_A)MACH = .16$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION

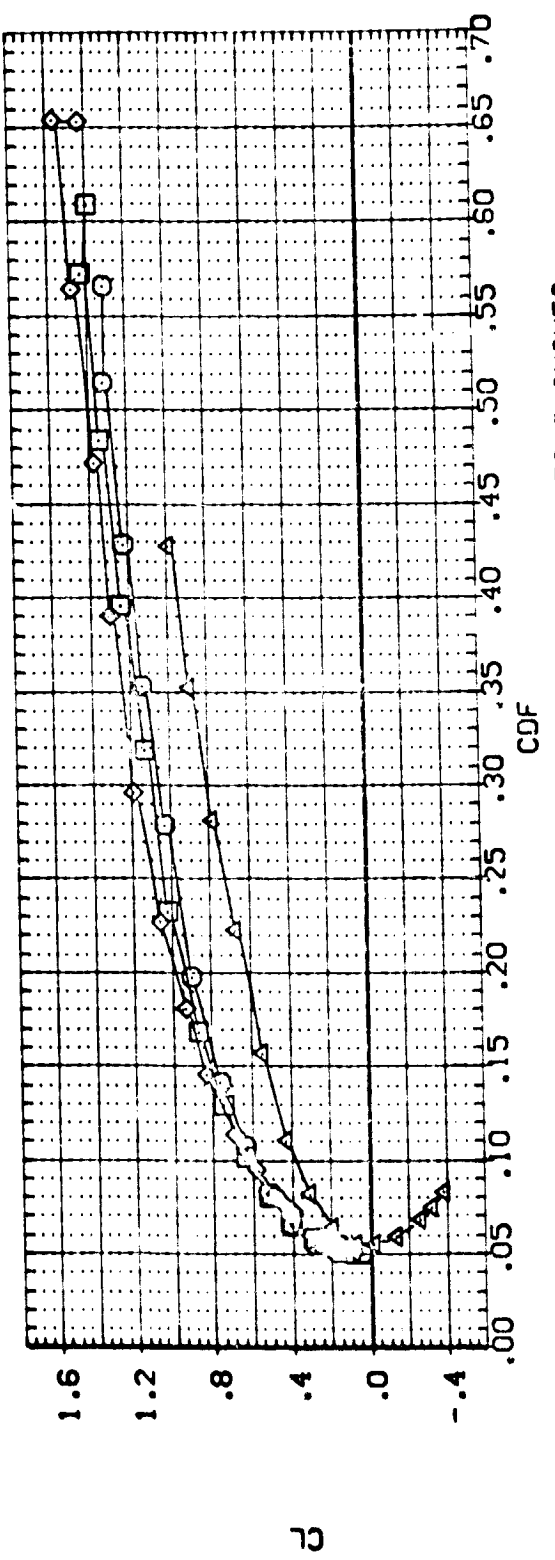
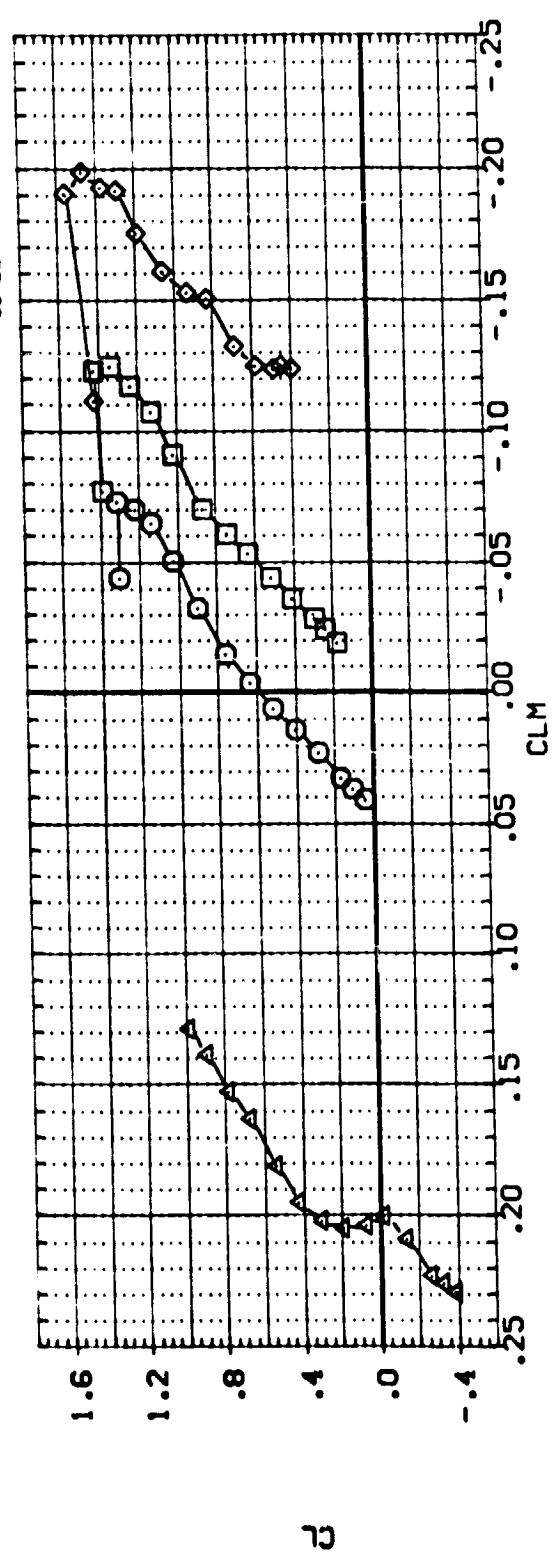
(FDQ243)	NR 701 .0405	CRB	8160507E	612087E	34GP
(FDQ242)	NR 701 .0405	CRB	8160507E	612087E	34GP
(FDQ241)	NR 701 .0405	CRB	8160507E	612087E	34GP
(FDQ240)	NR 701 .0405	CRB	8160507E	612087E	34GP

REFERENCE INFORMATION

SPREF	4.4119	50 FT.
LINEF	19.2349	INCHES
BRREF	37.5349	INCHES
XHREF	43.9374	INCHES
YHREF	16.0000	INCHES
ZHREF	16.0000	INCHES
SCALE	.0405	SCALE

QZ POS ELEVON NACVL LIP

159.000	0.00	4.000
159.000	5.000	4.000
159.000	15.000	4.000
159.000	-20.000	

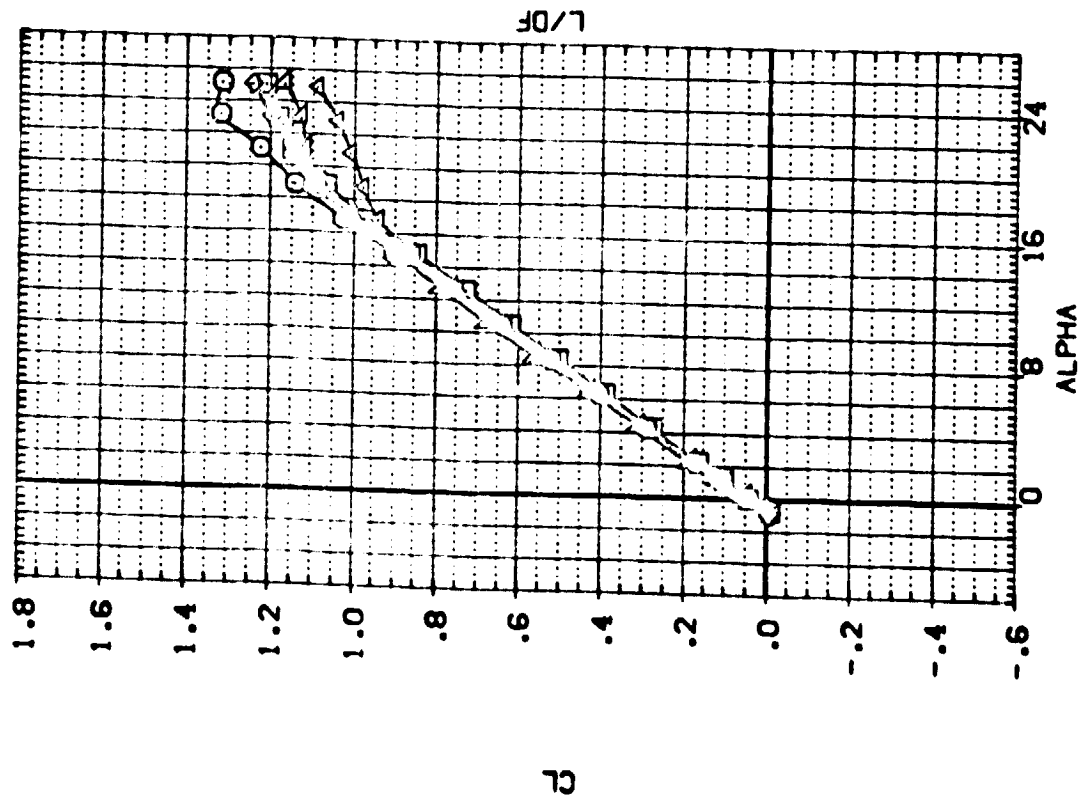


ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 159.0 INCHES

(A)MACH = .16

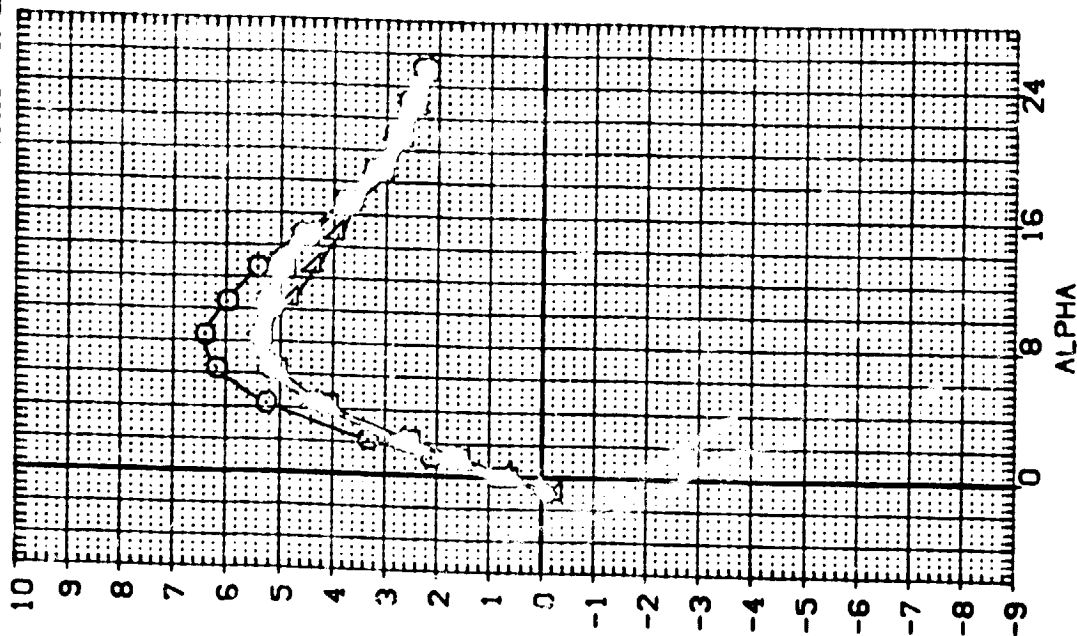
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(FDQ213)	NR.701.0405	DB8	8165507F	1012687V5X10-GP
(ADQ214)	NR.701.0405	DB8	8165507F	123012687V5X10-GP
(ADQ284)	NR.701.0405	DB8	8165507F	145612687V5X10-GP
(ADQ285)	NR.701.0405	DB8	8165507F	16812687V5X10-GP
(ADQ19)	NR.701.0405	DB8	8165507F	187612687V5X10-GP



GP-PUS B-FLAP MAC/L LIP REFERENCE INFORMATION

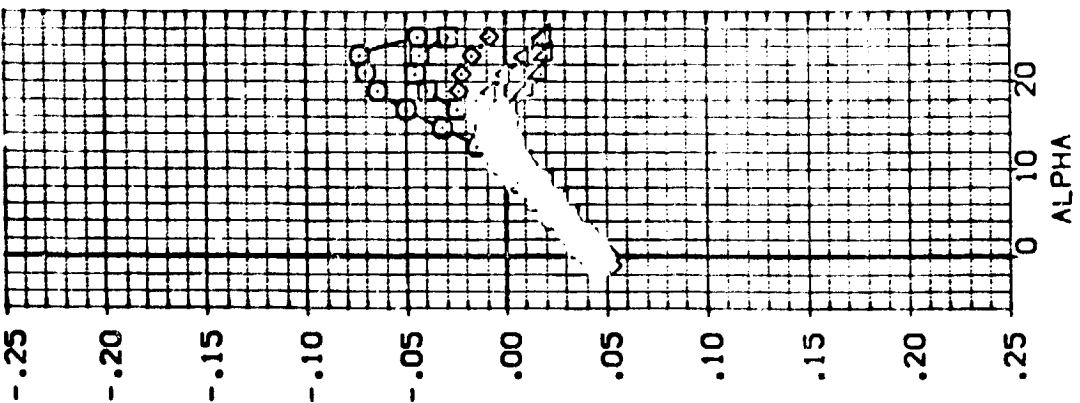
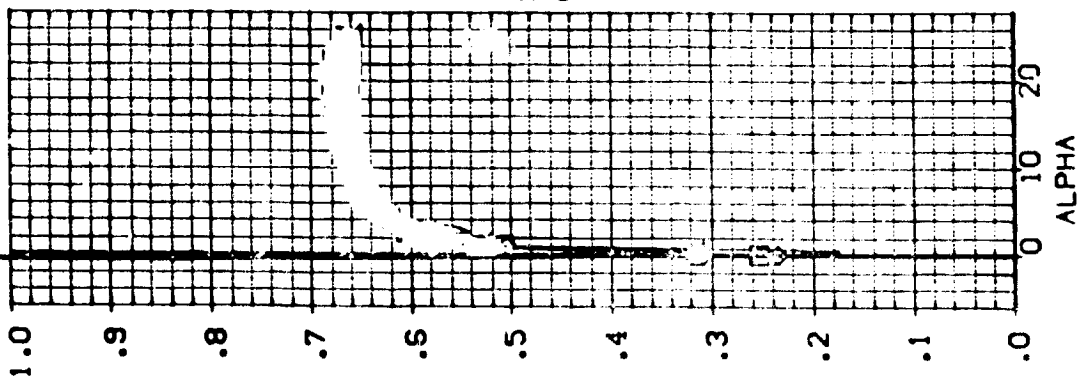
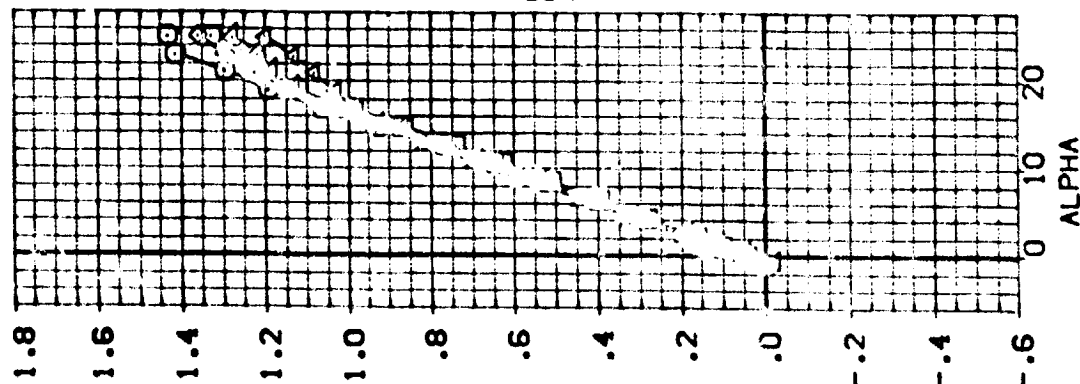
159.000	-18.000	.000	4.000	SREF	4.4119	52.000
159.000	-18.000	.000	4.000	UREF	19.2988	100.000
159.000	-18.000	.000	4.000	BREF	37.5949	100.000
159.000	-18.000	.490	4.000	XREF	43.5974	100.000
159.000	-18.000	.000	4.000	YREF	.0000	100.000
159.000	-18.000	.000	4.000	ZREF	16.2000	100.000
				SCALE	.0405	SCALE



EFFECT OF ABES. HEIGHT ABOVE GROUND= 159.0 INCHES

(A)MACH = .16

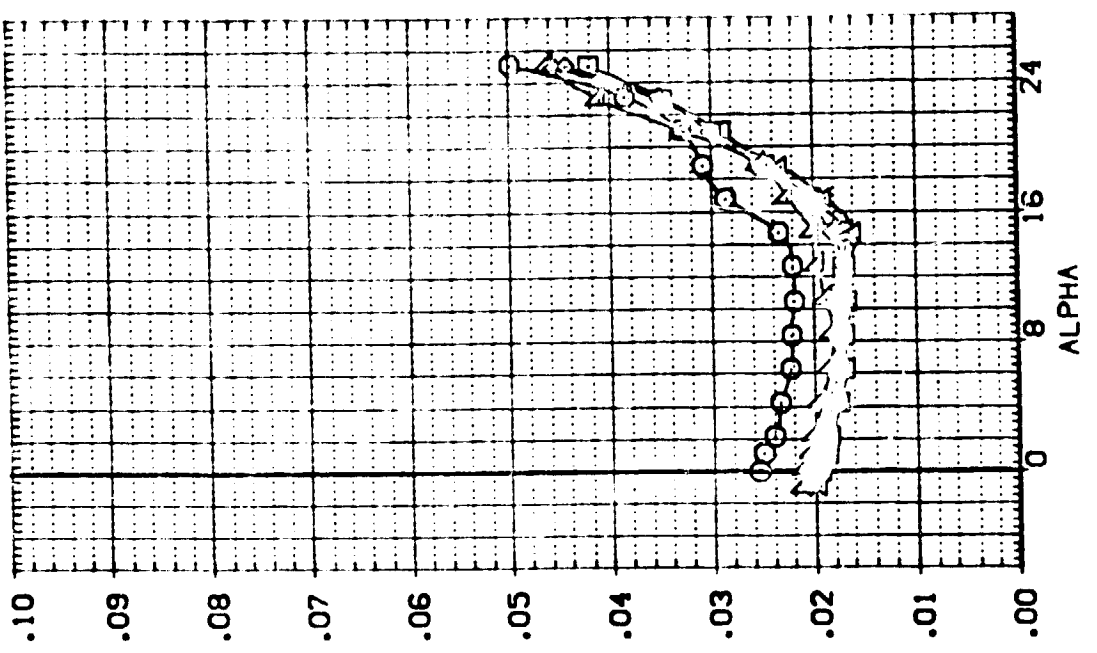
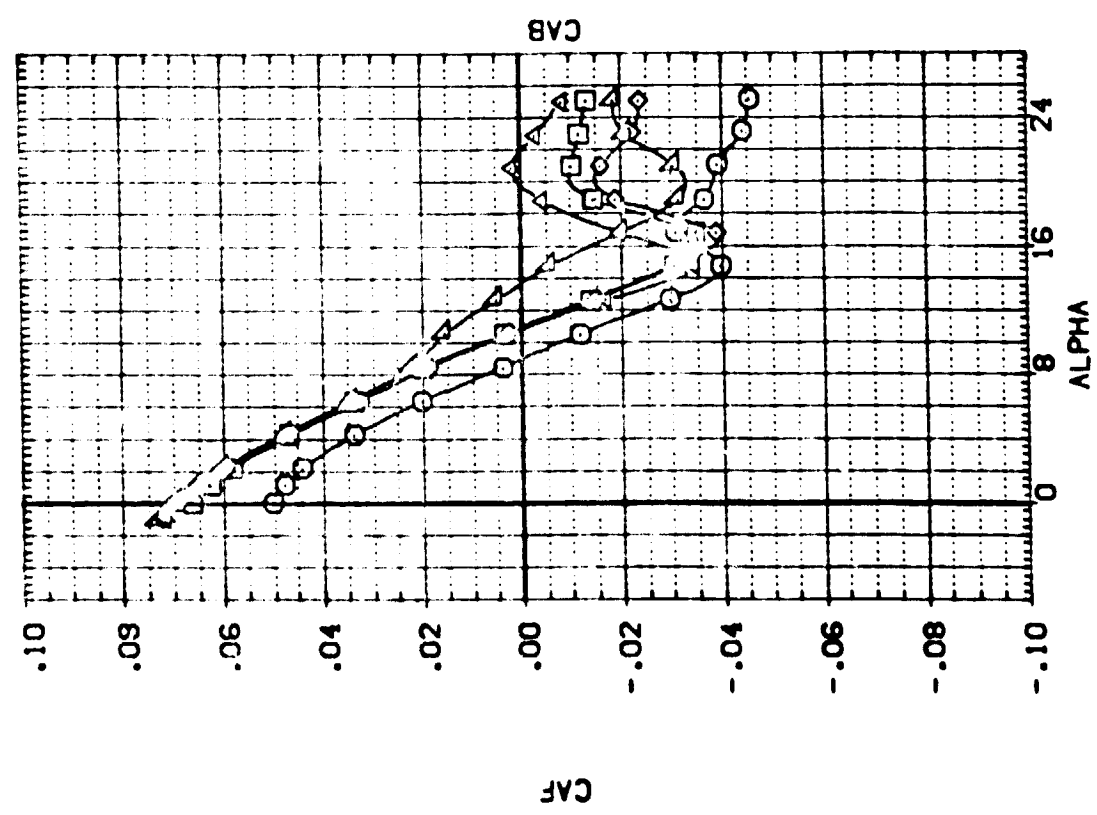
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	OP-POS	B-FLAP	MACAL	LIP	REFERENCE INFORMATION
(ADQ13)	NR.701.0405 000 816507F 612.3765X10-6P	153.000	-18.000	.000	4.000	SREF 4.4119 50.0 FT.
(ADQ14)	NR.701.0405 000 816507F 612.3765X10-6P	153.000	-18.000	.000	4.000	LREF 19.200 10.0 INCHES
(ADQ15)	NR.701.0405 000 816507F 612.3765X10-6P	153.000	-18.000	.000	4.000	BREF 37.000 10.0 INCHES
(ADQ16)	NR.701.0405 000 816507F 612.3765X10-6P	153.000	-18.000	.000	4.000	YREF 43.000 10.0 INCHES
(ADQ17)	NR.701.0405 000 816507F 612.3765X10-6P	153.000	-18.000	.000	4.000	ZREF 16.200 10.0 INCHES
(ADQ18)	NR.701.0405 000 816507F 612.3765X10-6P	153.000	-18.000	.000	4.000	SCALE .0405



EFFECT OF ABES, HEIGHT ABOVE GROUND= 159.0 INCHES

(A)MACH = .16

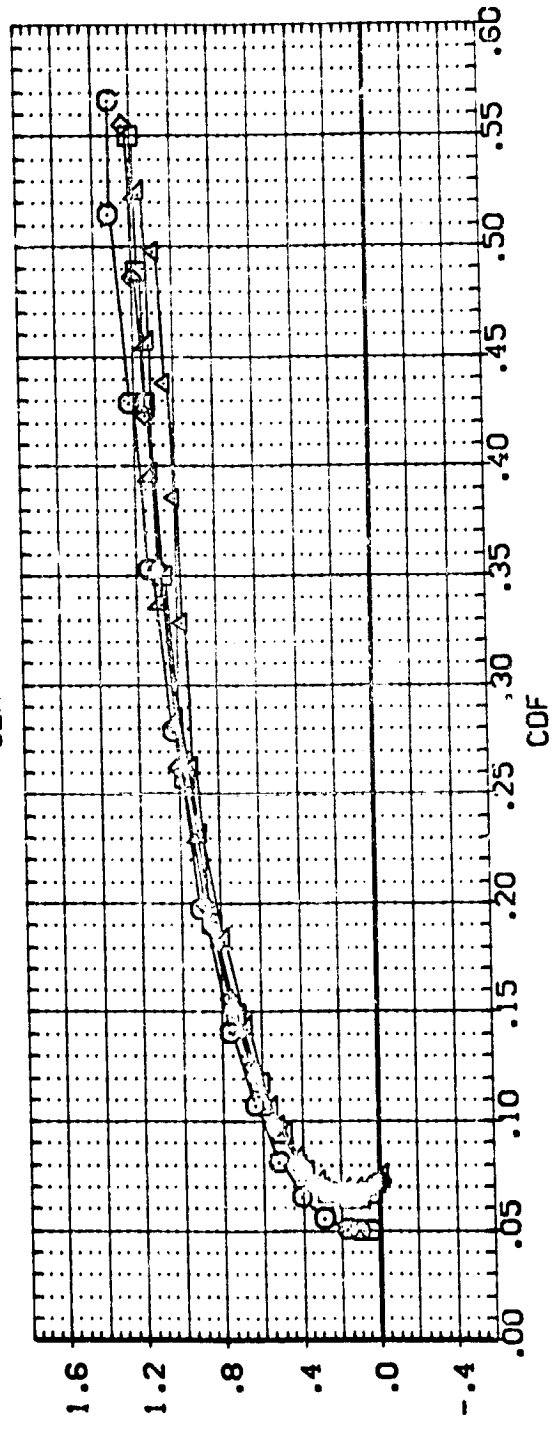
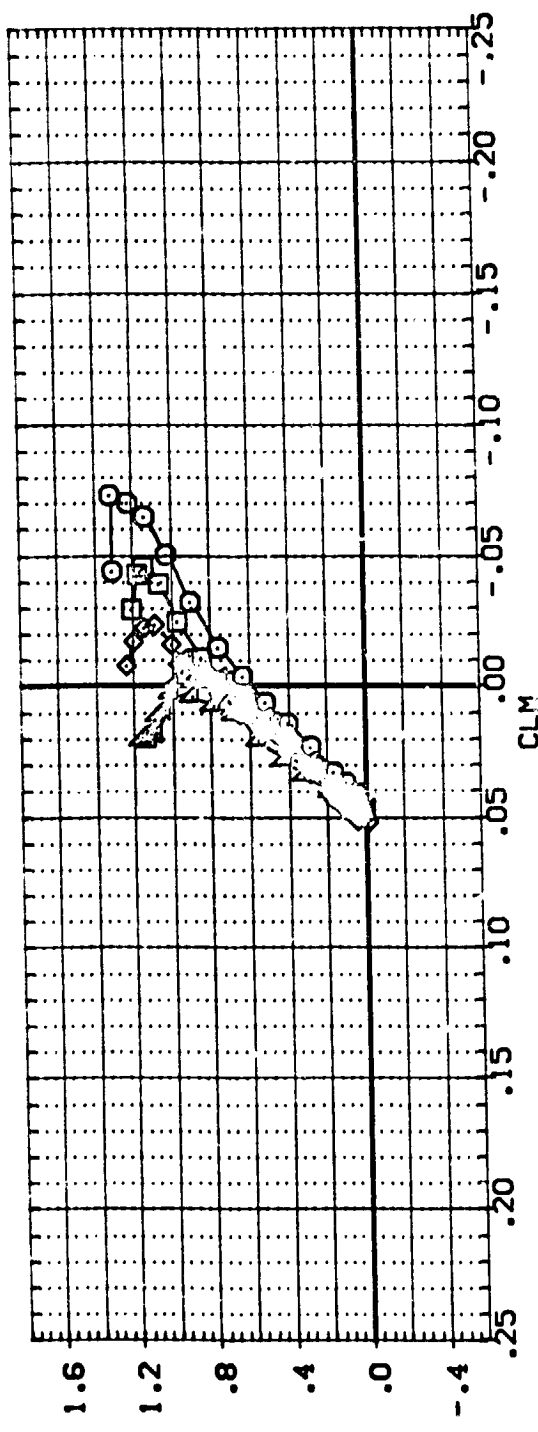
DATA SET SYMBOL	CONF	QUANT	DESCRIPTION	GP-POS	B-FLAP	MACVL	LIP	REFERENCE INFORMATION
(AD-043)	18.701	0405	088 816507E 1361287VSK10-CP	159.000	-18.000	.000	1.000	SRF 4.4119 57.57
(AD-044)	18.701	0405	088 816507E 1361287VSK10-CP	159.000	-18.000	.000	1.000	SRF 19.2358 1.00-ES
(AD-084)	18.701	0405	088 816507E 1361287VSK10-CP	159.000	-18.000	.000	1.000	SRF 37.5343 1.00-ES
(AD-085)	18.701	0405	088 816507E 1361287VSK10-CP	159.000	-18.000	.000	1.000	SRF 43.5374 1.00-ES
(AD-019)	18.701	0405	088 816507E 1361287VSK10-CP	159.000	-18.000	.000	1.000	SRF 16.2000 1.00-ES
								SCALE .0405



EFFECT OF ABES, HEIGHT ABOVE GROUND= 159.0 INCHES

(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CLM	CDP	FLAP	MACAL	LIP	REFERENCE INFORMATION
FD0243	NR.701.0405 008 016507F 161267V 3X10-GP						30.FT. 4.4119
AD0244	NR.701.0405 008 016507F 161267V 3X10-GP						19.2000
AD0224	NR.701.0405 008 016507F 161267V 3X10-GP						37.5043
AD0265	NR.701.0405 008 016507F 161267V 3X10-GP						43.5074
AD0319	NR.701.0405 008 016507F 161267V 3X10-GP						16.2000
							SCALE .0405



EFFECT OF ABES, HEIGHT ABOVE GROUND= 159.0 INCHES

(A)MACH = .16

GP-POS 159.000  
 159.000  
 159.000  
 159.000  
 159.000

ELEVON .000  
 .000  
 .000  
 .000  
 .000

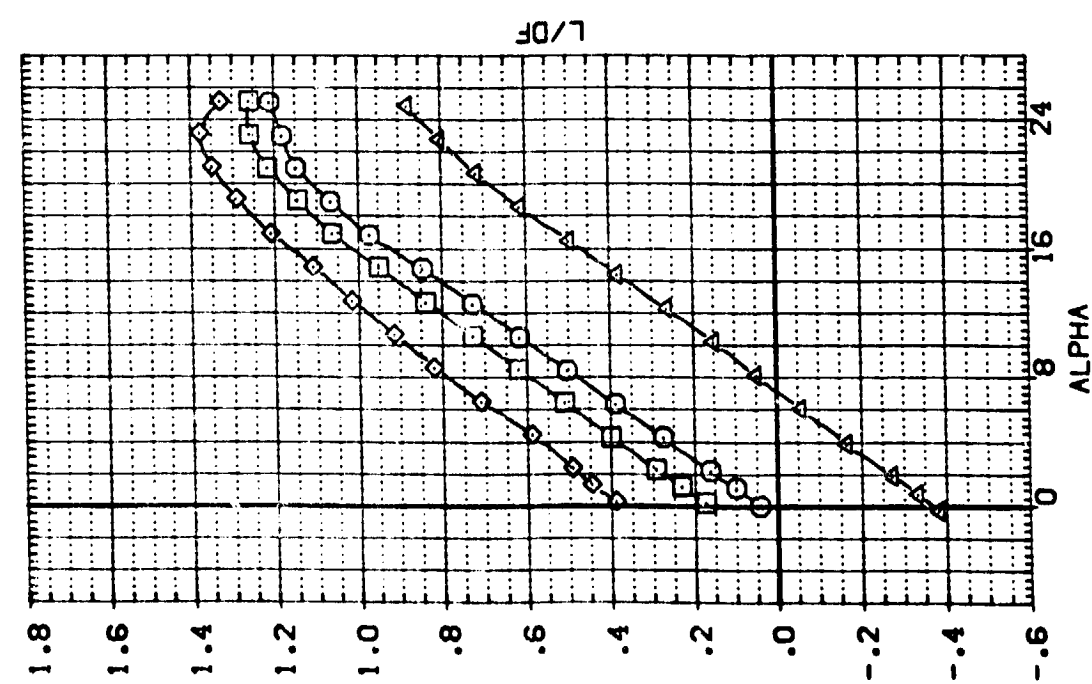
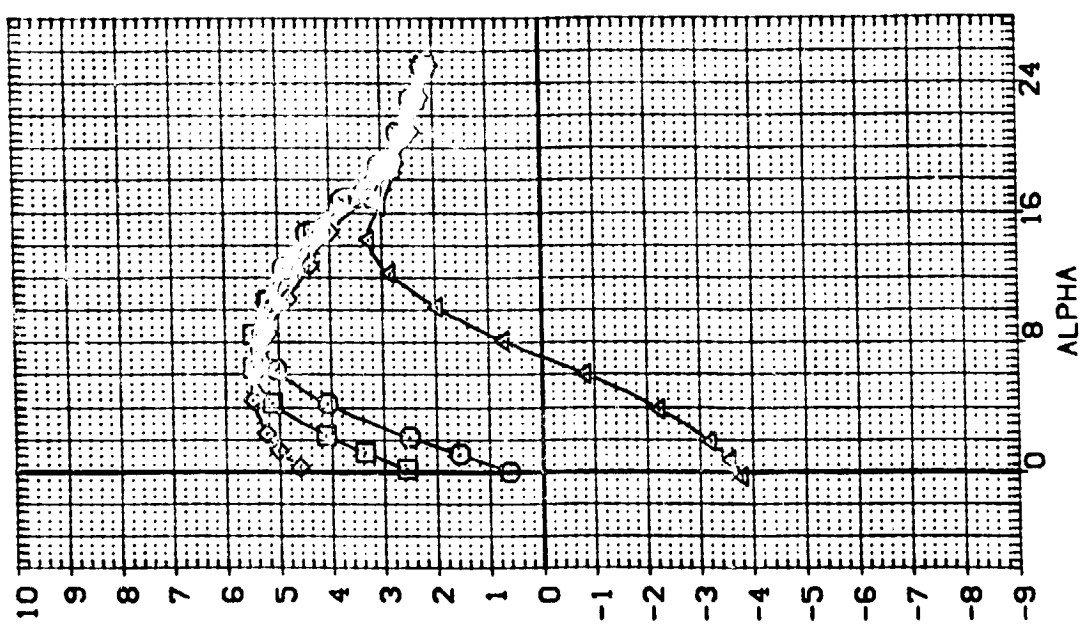
NACVAL .000  
 .000  
 .000  
 .000  
 .000

LIP 4.000  
 4.000  
 4.000  
 4.000  
 4.000

REFERENCE INFORMATION  
 SREF 4.4119 SQ.FT.  
 LREF 19.2539 INCHES  
 BREF 27.9349 INCHES  
 XREF 43.5974 INCHES  
 YREF 16.0000 INCHES  
 ZREF 16.0000 INCHES  
 SCALE .0405

DATA SET SYMBOL (AD244)  
 (AD245)  
 (AD246)  
 (AD247)

CONFIGURATION DESCRIPTION  
 NR 701 0405 088 816C507F 1361287V5X10-GP  
 NR 701 0405 088 816C507F 1361287V16V5X10-GP  
 NR 701 0405 088 816C507F 1361287V16V5X10-GP  
 NR 701 0405 088 816C507F 1361287V18V5X10-GP



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16



DATA SET SYMBOL CONFIGURATION DESCRIPTION

NR.701.0405	098	8165507E173612487E18VX10+GP
NR.701.0405	098	8165507E173612487E18VX10+GP
NR.701.0405	098	8165507E173612487E18VX10+GP
NR.701.0405	098	8165507E173612487E18VX10+GP

REFERENCE INFORMATION

SREF	4.4119	SO.FT.
LREF	19.2000	INCHES
BREF	37.5974	INCHES
XREF	43.0000	INCHES
YREF	16.2000	INCHES
ZREF	16.2000	INCHES
SCALE	.0405	SCALE

LIP

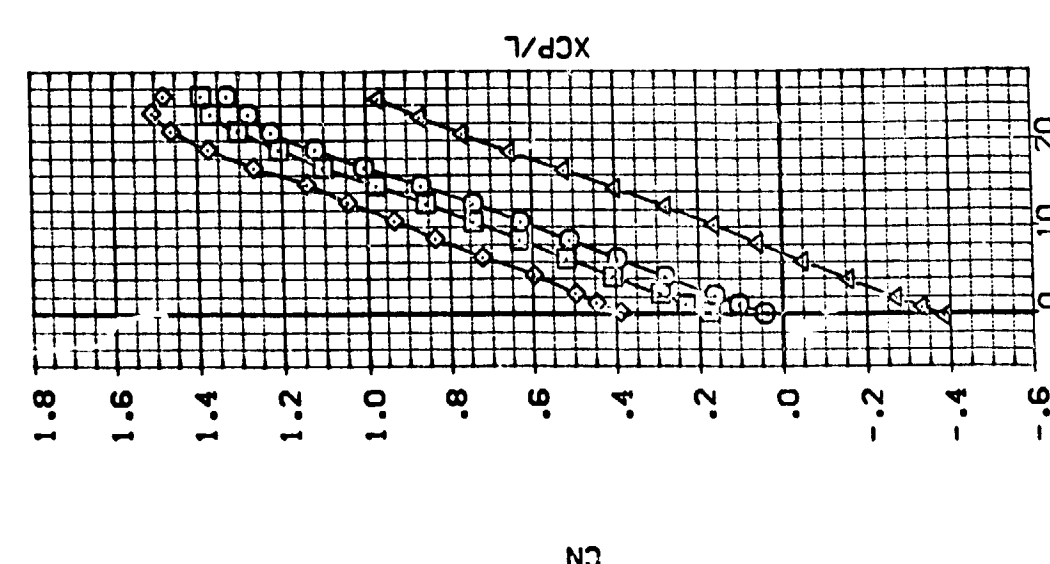
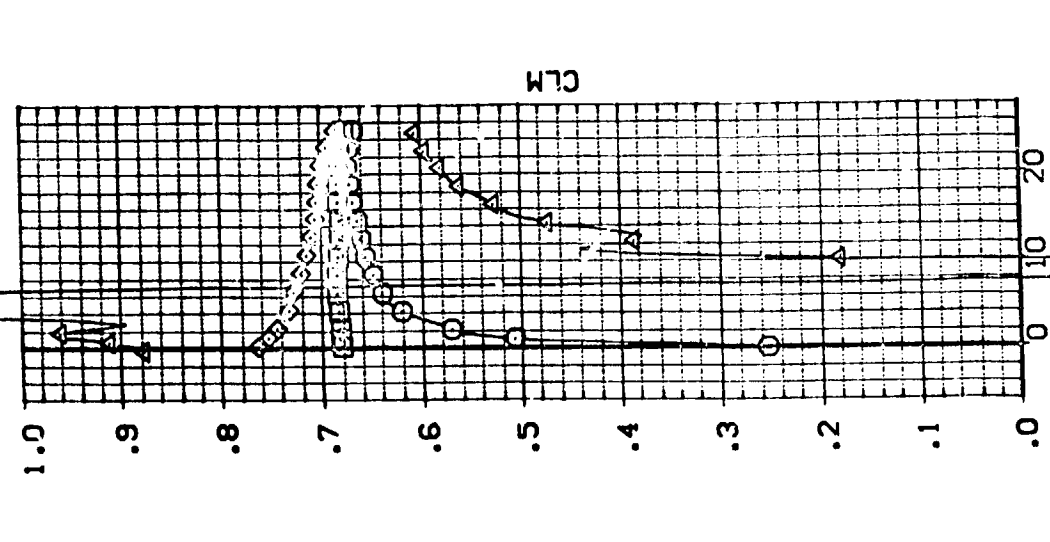
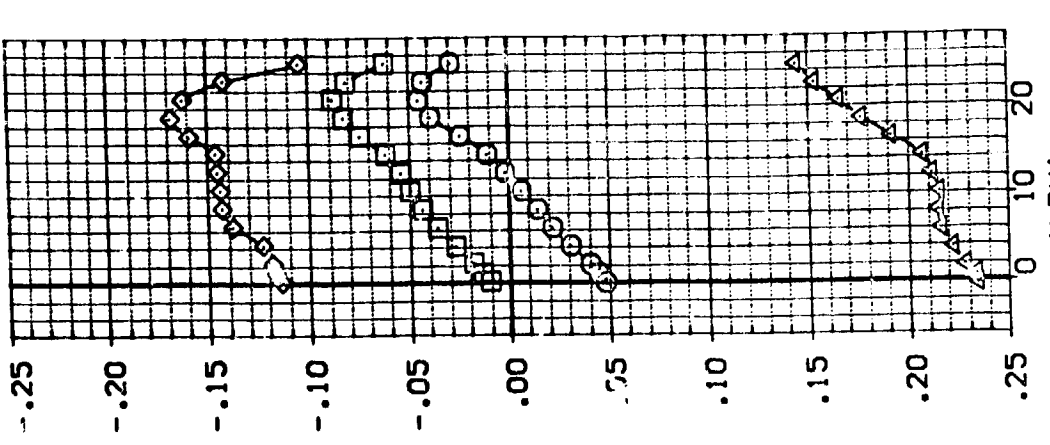
MACVL	4.000
ELEVON	.000
GP-POS	159.000
GP	159.000
GP	159.000
GP	159.000
GP	159.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

NR.701.0405	098	8165507E173612487E18VX10+GP
NR.701.0405	098	8165507E173612487E18VX10+GP
NR.701.0405	098	8165507E173612487E18VX10+GP
NR.701.0405	098	8165507E173612487E18VX10+GP

REFERENCE INFORMATION

SREF	4.4119	SO.FT.
LREF	19.2000	INCHES
BREF	37.5974	INCHES
XREF	43.0000	INCHES
YREF	16.2000	INCHES
ZREF	16.2000	INCHES
SCALE	.0405	SCALE



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16

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DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(AD-241)      NR 101 0405 03 81 60 507 1731 24876 196310 0P

(AD-245)      NR 101 0405 03 81 60 507 1731 24876 196310 0P

(AD-246)      NR 101 0405 03 81 60 507 1731 24876 196310 0P

(AD-247)      NR 101 0405 03 81 60 507 1731 24876 196310 0P

GP-RUS      ELEVON      NACVAL      LIP      REFERENCE INFORMATION

159.000      5.000      0.000      4.000      SREF      4.4119      SQ.FT.      19.2339      INCHES

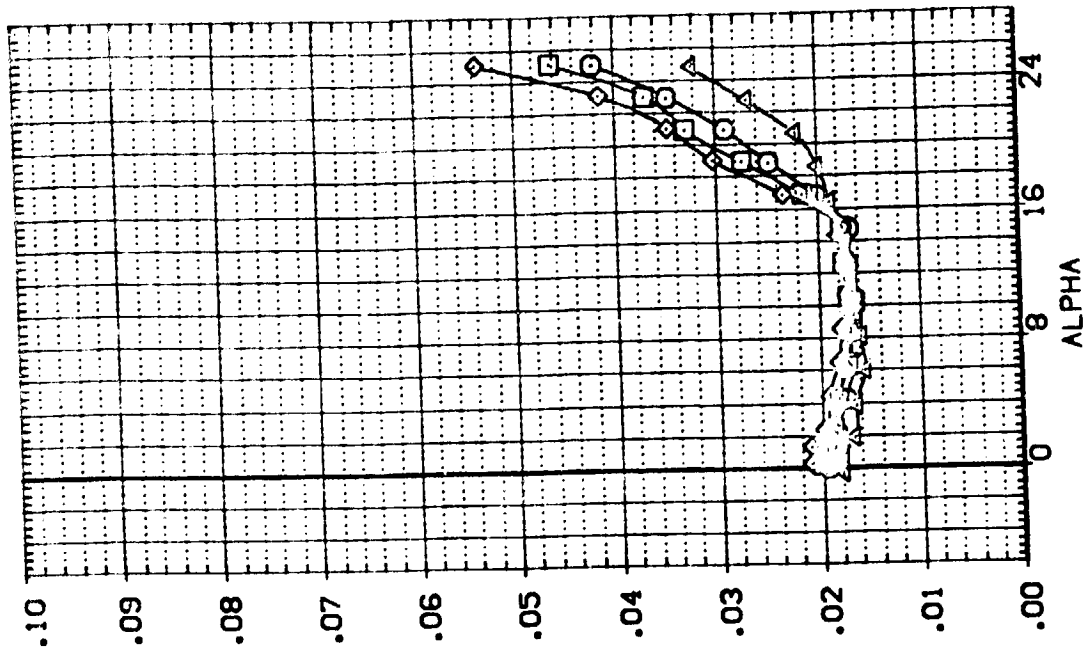
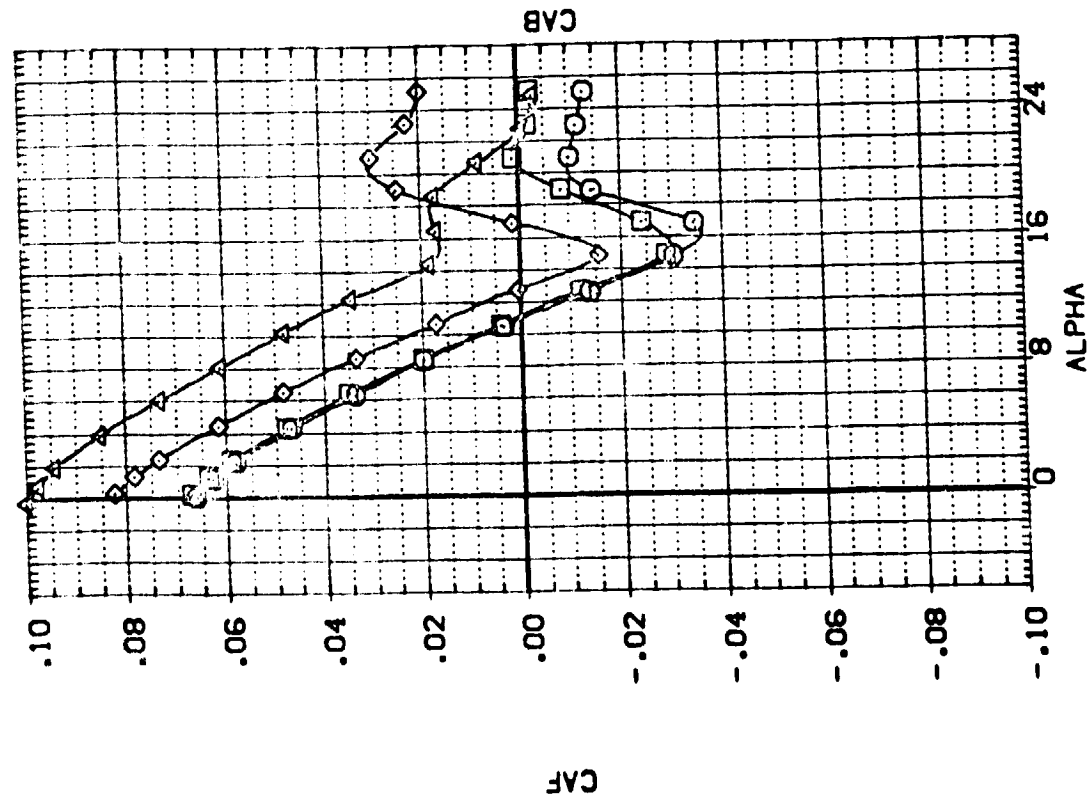
159.000      15.000      0.000      4.000      LREF      37.0319      INCHES

159.000      -20.000      0.000      4.000      RREF      43.5574      INCHES

159.000                          TREF      16.2000      INCHES

159.000                          ZREF      16.2000      INCHES

159.000                          SCALE      0.0405      INCHES

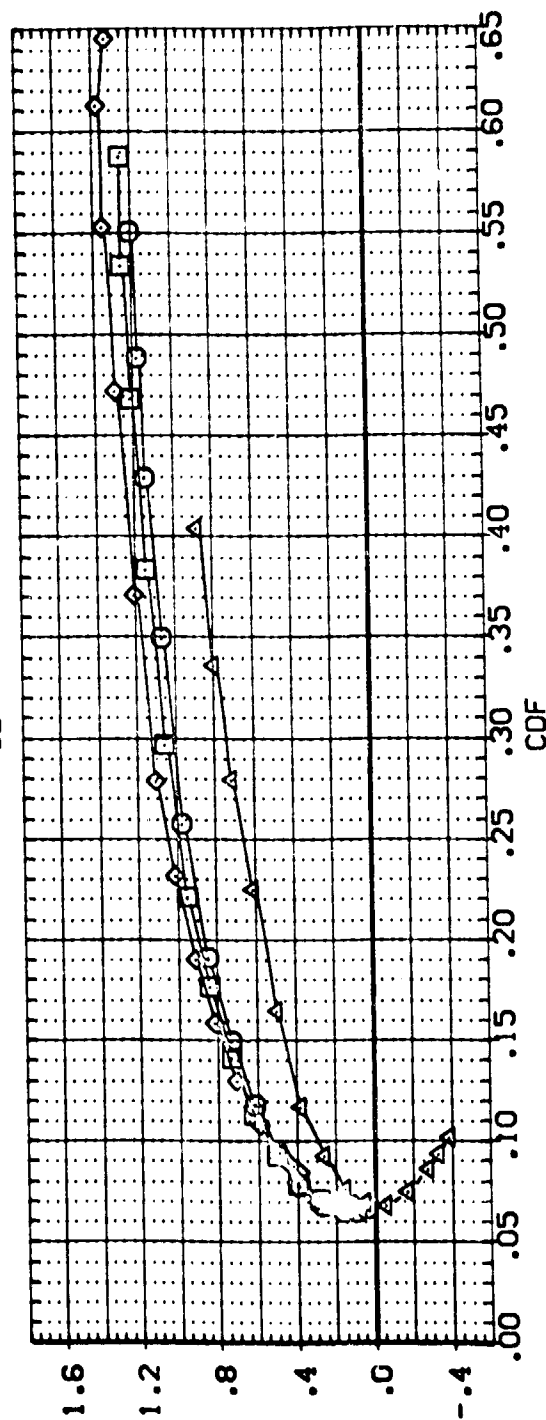
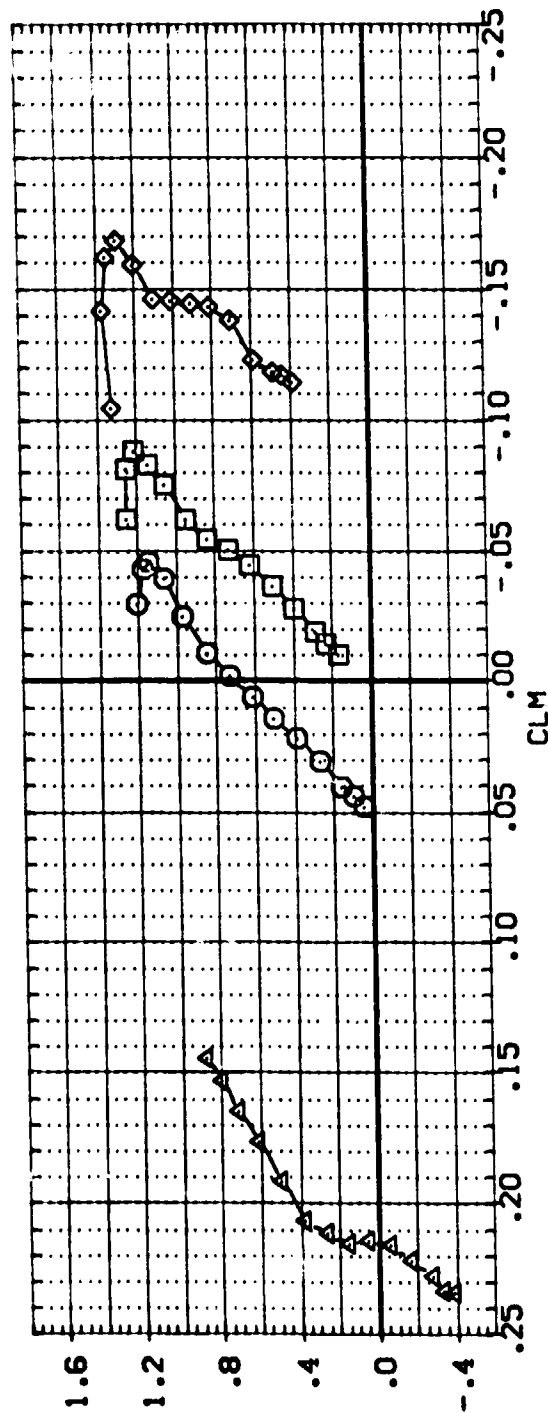


ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=159.0 INCHES


(A)MACH = .16

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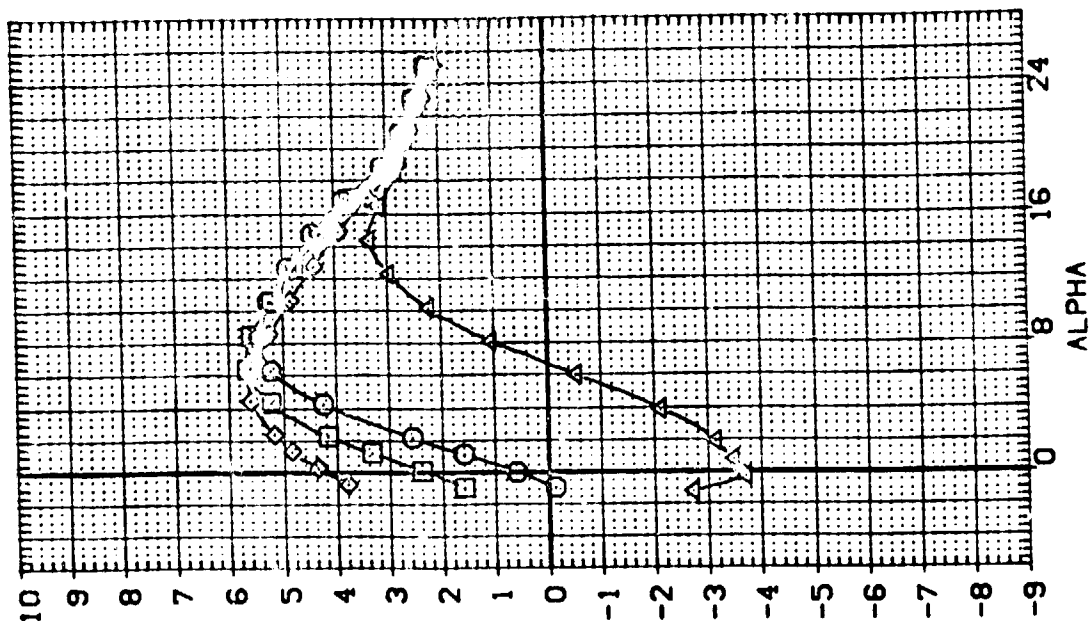
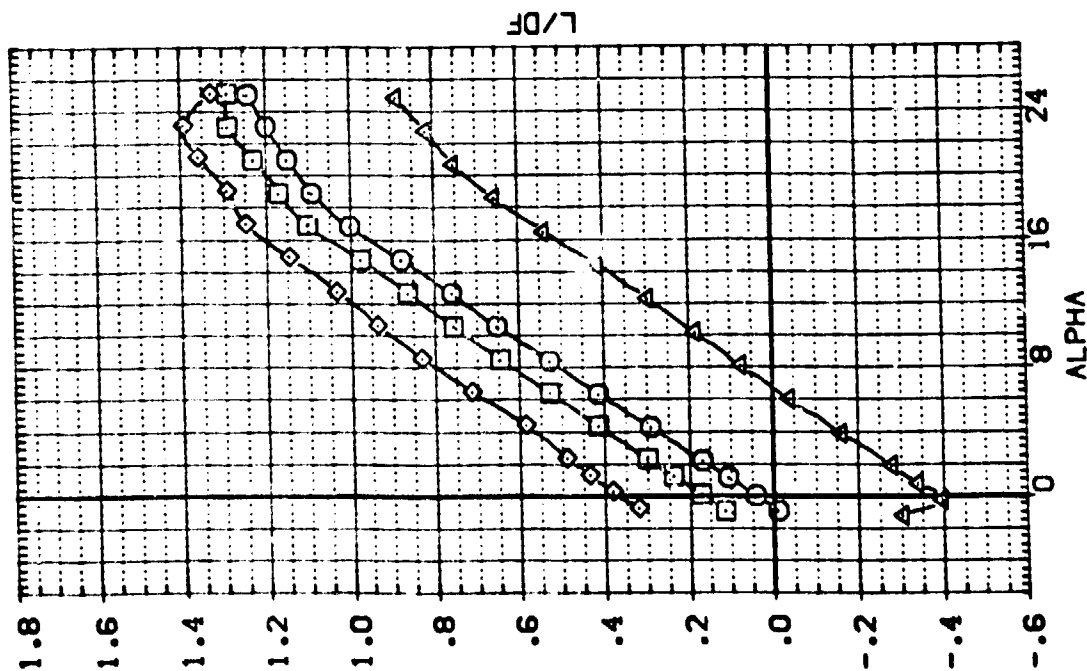
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVL	LIP	REFERENCE INFORMATION
(ADN244)	NR.701.0405 C38 B16C507F143612V87E18V5X10+GP	159.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
(ADN245)	NR.701.0405 C38 B16C507F143612V87E18V5X10+GP	159.000	5.000	.000	4.000	LREF 19.2869 INCHES
(ADN246)	NR.701.0405 C38 B16C507F143612V87E18V5X10+GP	159.000	15.000	.000	4.000	BREF 37.5319 INCHES
(ADN247)	NR.701.0405 C38 B16C507F143612V87E18V5X10+GP	159.000	-20.000	.000	4.000	XREF 43.5371 INCHES
						YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND=159.0 INCHES

DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: NR. 701.0405 088 8165307E 1551 2467E 18VX10+GP  
 [AD-281] NR. 701.0405 088 8165307E 1551 2467E 18VX10+GP  
 [AD-282] NR. 701.0405 088 8165307E 1551 2467E 18VX10+GP  
 [AD-283] NR. 701.0405 088 8165307E 1551 2467E 18VX10+GP

GP-HCS	ELEVON	NACCEL	LIP	REFERENCE INFORMATION
159.000	0.000	0.000	4.000	SREF 4.4119 SQ.FT. INCHES
159.000	0.000	0.000	4.000	LREF 19.2739 INCHES
159.000	15.000	0.000	4.000	BREF 37.9349 INCHES
159.000	-20.000	0.000	4.000	XREF 43.5574 INCHES
				YREF 15.2000 INCHES
				ZREF 0.0405 INCHES



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACCELLES) HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16

(ADN284)  
(ADN231)  
(ADN282)  
(ADN283)

**CONFIGURATION DESCRIPTION**

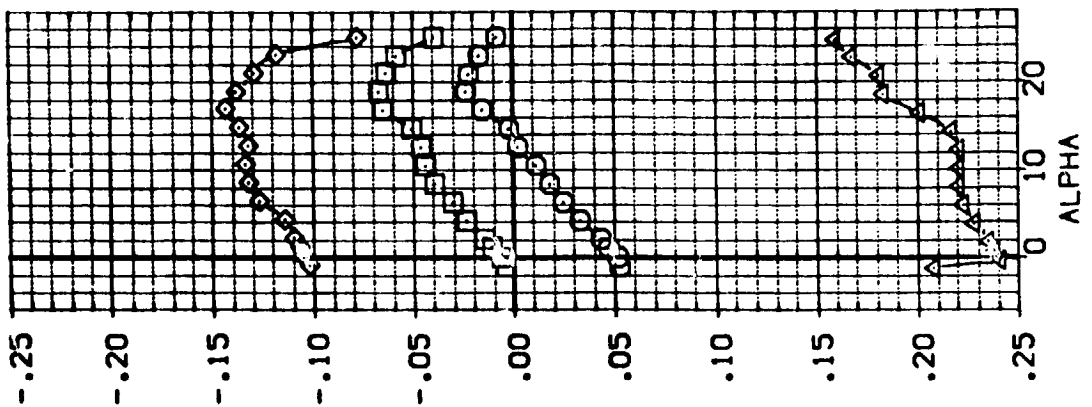
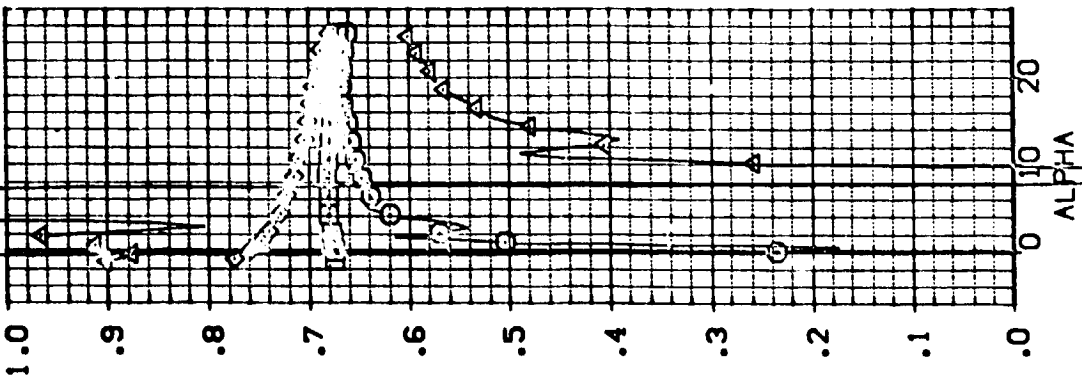
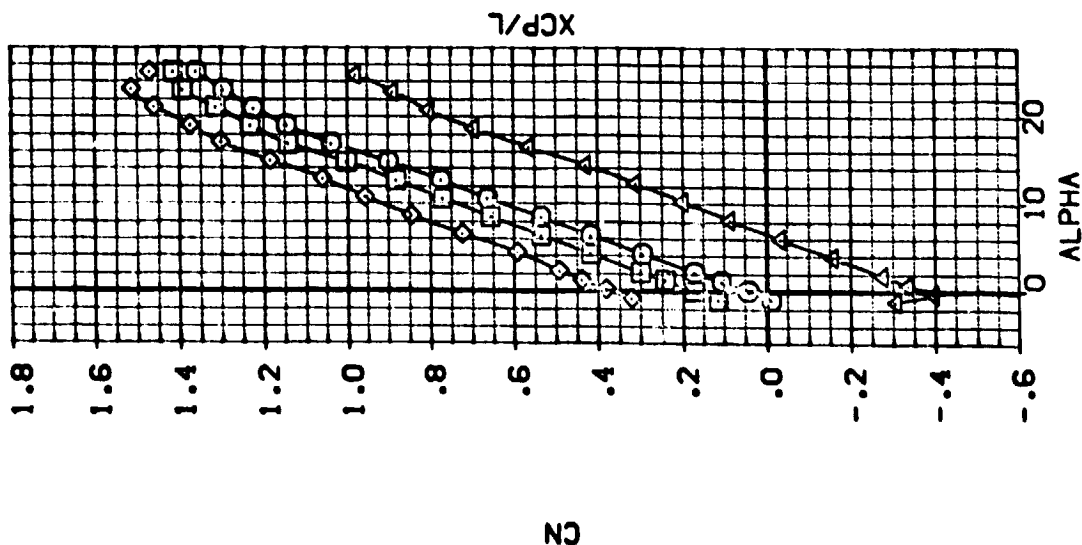
NR 701.0405 008 B16C507F J5G12687E18V5X10+GP  
NR 701.0405 023 B16C507F J5G12687E18V5X10+GP  
NR 701.0405 008 B16C507F J5G12687E18V5X10+GP  
NR 701.0405 008 B16C507F J5G12687E18V5X10+GP

WACON LIP

8888

REFERENCE IN LITERATURE

SCALE	.0405
ZMRP	16.2000
YMRP	.0000
XMRP	43.5974
BREF	37.9749
LFREF	19.7399
SREF	4.4113



ELEVEN EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=159.0 INCHES

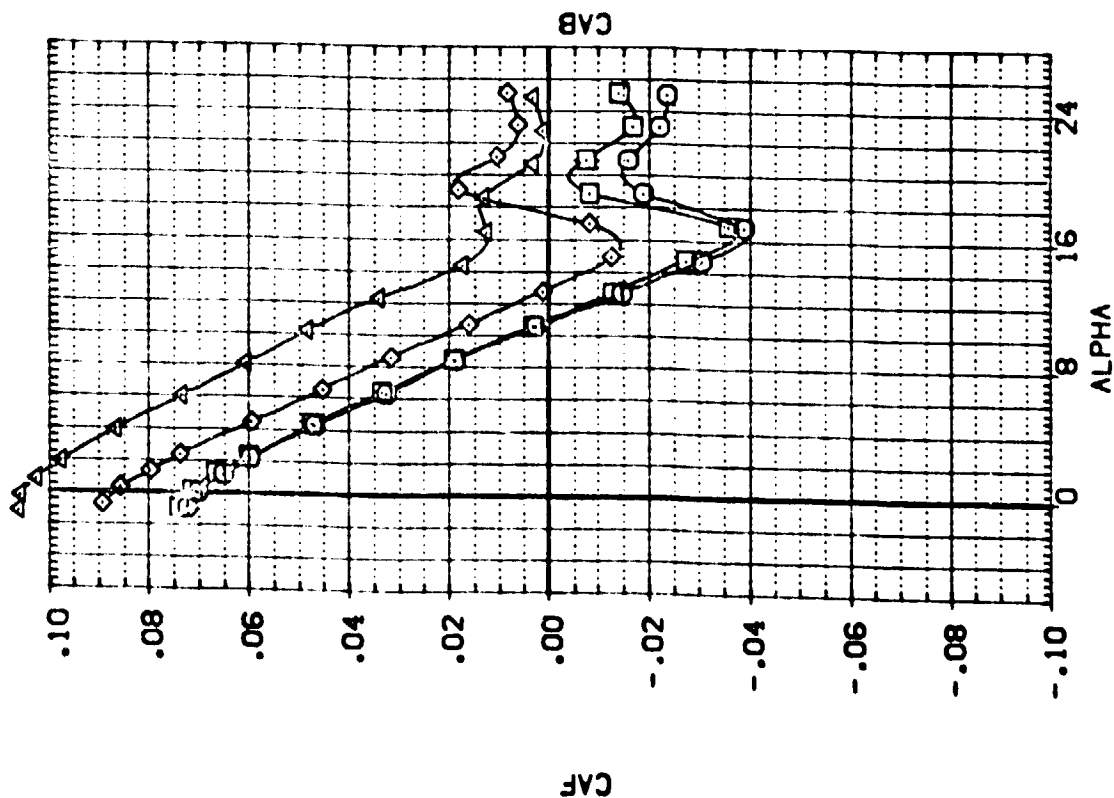
**CAMACH = .16**

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# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AD-284) 18.701.0405 098 B167507F 1.531 2V87E 18.5X10-CP  
 (AD-281) 18.701.0405 098 B167507F 1.531 2V87E 18.5X10-CP  
 (AD-280) 18.701.0405 098 B167507F 1.531 2V87E 18.5X10-CP  
 (AD-283) 18.701.0405 098 B167507F 1.531 2V87E 18.5X10-CP

GP-POS ELEVON NACA/L LIP REFERENCE INFORMATION  
 159.000 1.000 4.000 SREF 4.4119 50.000  
 159.000 5.000 4.000 LREF 19.2359 100.000  
 159.000 15.000 4.000 BREF 37.3049 100.000  
 159.000 -20.000 4.000 XREF 43.5974 100.000  
 159.000 16.2000 100.000 YREF 16.2000 100.000  
 159.000 16.2000 100.000 ZREF 16.2000 100.000  
 159.000 16.2000 100.000 SCALE .0405 100.000

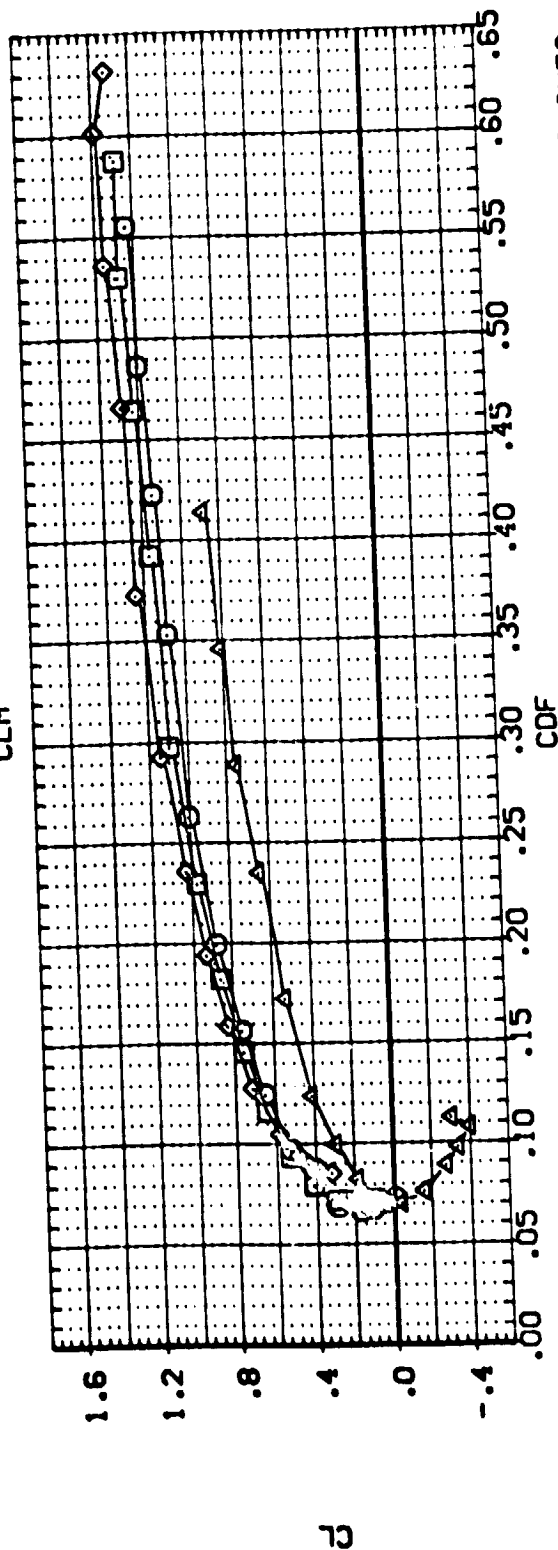
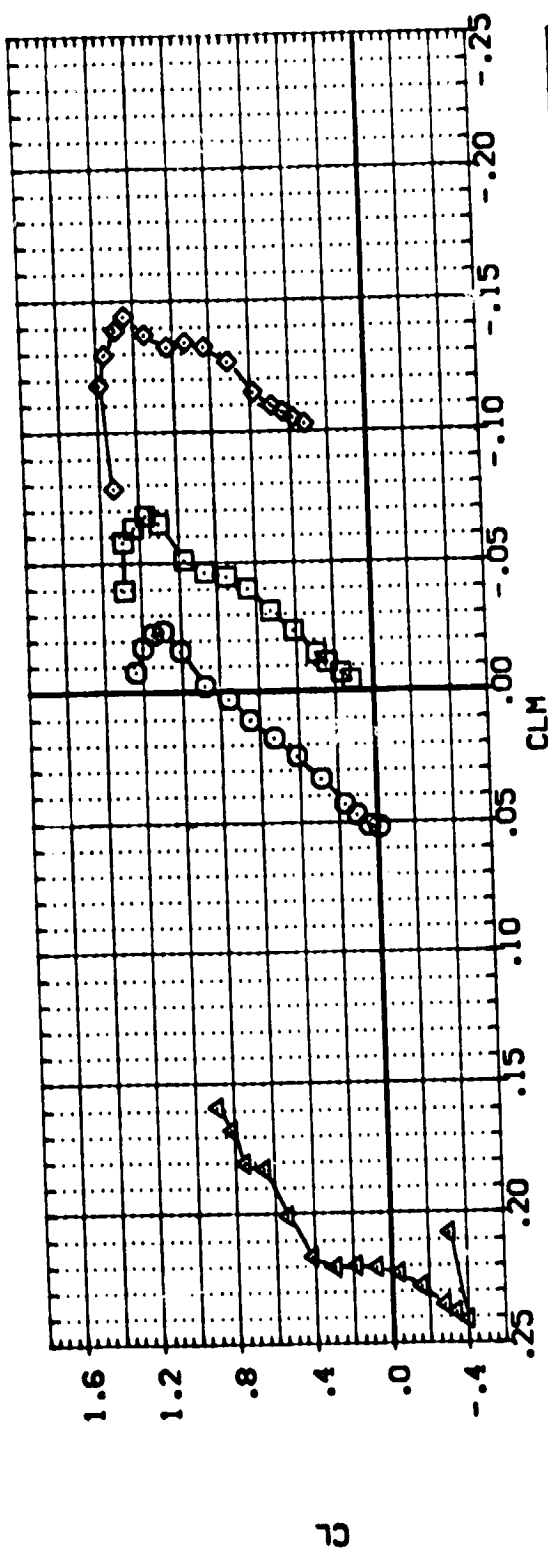


ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-PDS	ELEVON	NAC/L	LIP	REFERENCE INFORMATION
(ADG281)	NR.701.0405 CR8 B16C507E J5612V67V5X10+GP	159.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
(AGC281)	NR.701.0405 CR8 B16C507E J5612V67V5X10+GP	159.000	5.000	.000	4.000	LREF 19.2378 INCHES
(ADG28C)	NR.701.0405 CR8 B16C507E J5612V67V5X10+GP	159.000	15.000	.000	4.000	BREF 37.9243 INCHES
(ADG28C)	NR.701.0405 CR8 B16C507E J5612V67V5X10+GP	159.000	-20.000	.000	4.000	XREF 43.5974 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



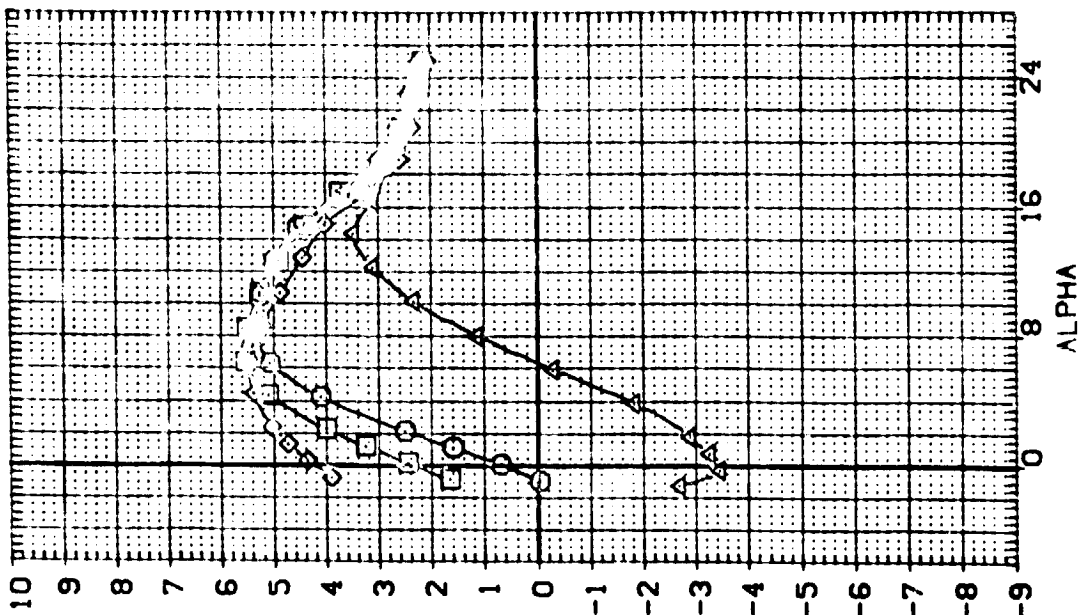
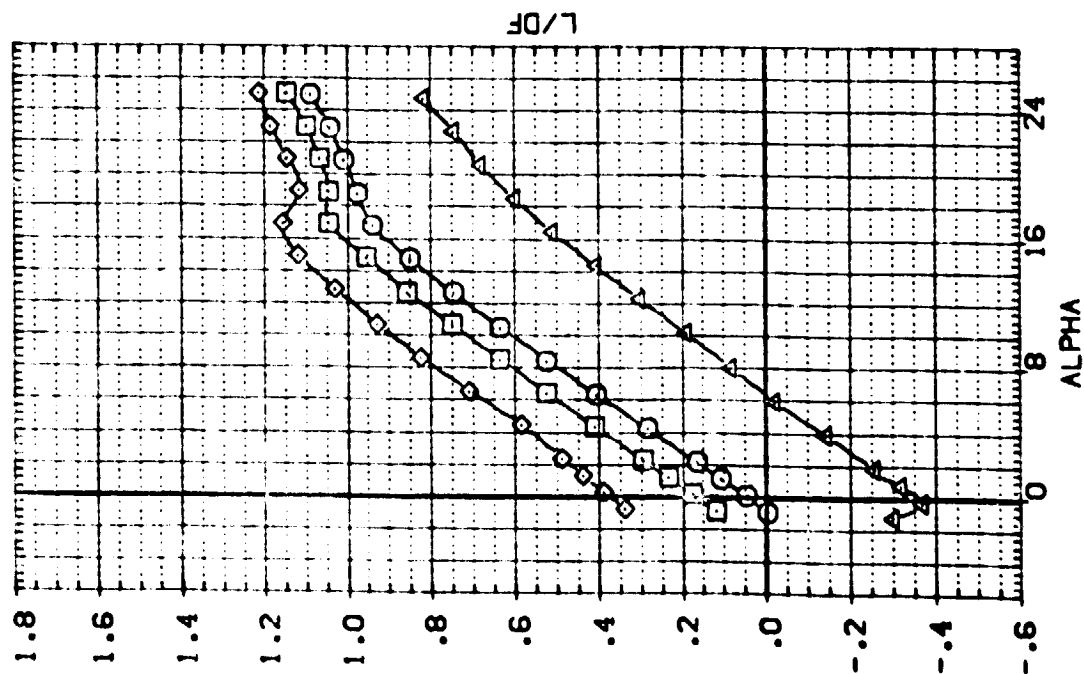
ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ADG85) NR.701.0405 028 B16C507E J63124875X10+0P  
 (ADG87) NR.701.0405 028 B16C507E J63124875X10+0P  
 (ADG88) NR.701.0405 028 B16C507E J63124875X10+0P  
 (ADG86) NR.701.0405 028 B16C507E J63124875X10+0P

GP-POS ELEVON MACVAL LIP REFERENCE INFORMATION  
 159.000 0.000 .450 4.000 SREF 4.4119 50.0 FT.  
 159.000 5.000 .450 4.000 LREF 19.2359 100.0 FT.  
 159.000 15.000 .450 4.000 XREF 37.5519 150.0 FT.  
 159.000 -20.000 .450 4.000 YREF 43.5574 150.0 FT.  
 ZREF 16.2000 100.0 FT.  
 SCALE 1.0XCS



ELEVON EFFECTIVENESS. 2 FUSELAGE AND 2 WING ABES. HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16



DATA SET SYMBOL CONFIGURATION DESCRIPTION

AD-285	NP.701.0405	Q88	8163507F	146312V87E	18V5X10+GP
AD-287	NP.701.0405	Q88	8163507F	146312V87E	18V5X10+GP
AD-288	NP.701.0405	Q88	8163507F	146312V87E	18V5X10+GP
AD-286	NP.701.0405	Q88	8163507F	146312V87E	18V5X10+GP

REFERENCE INFORMATION

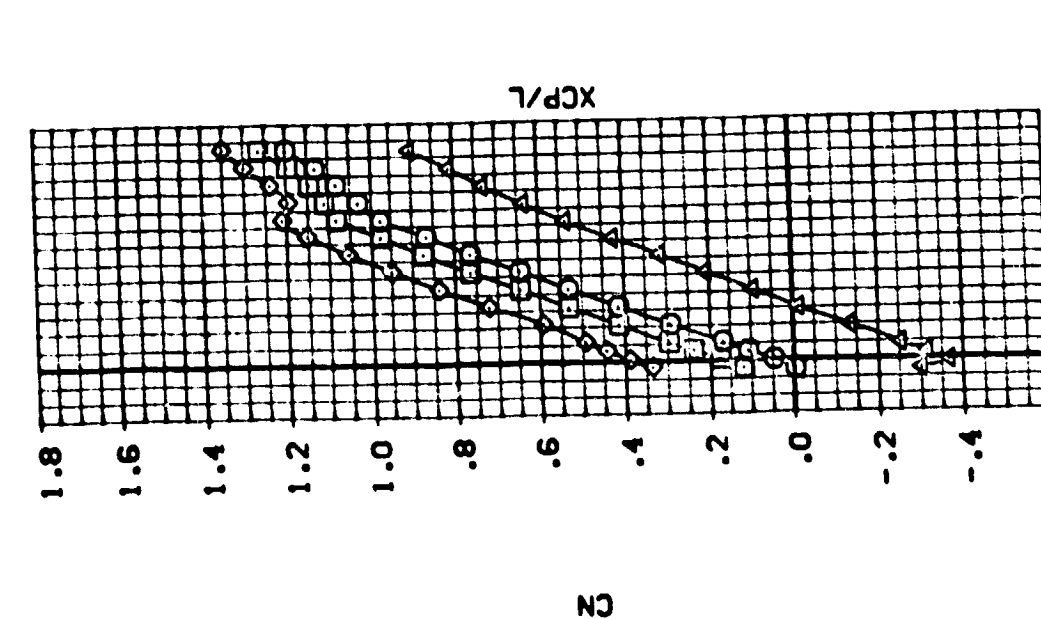
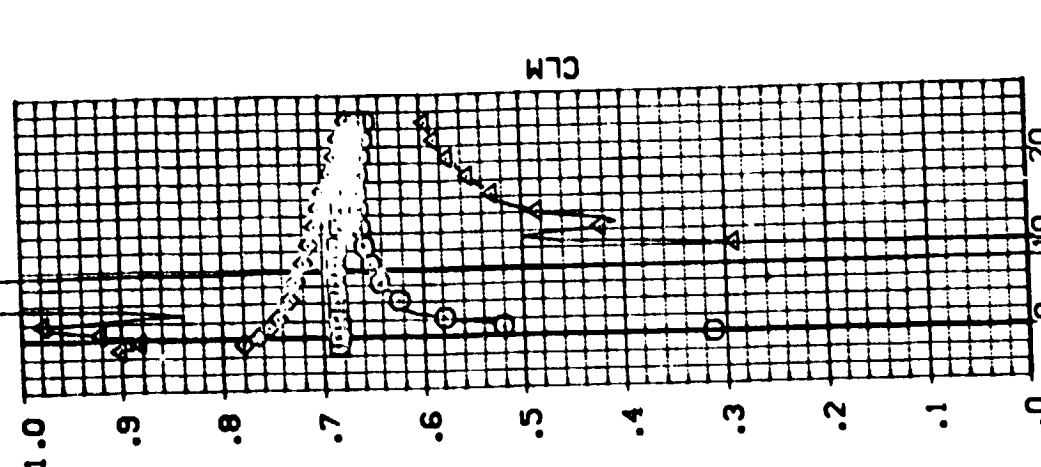
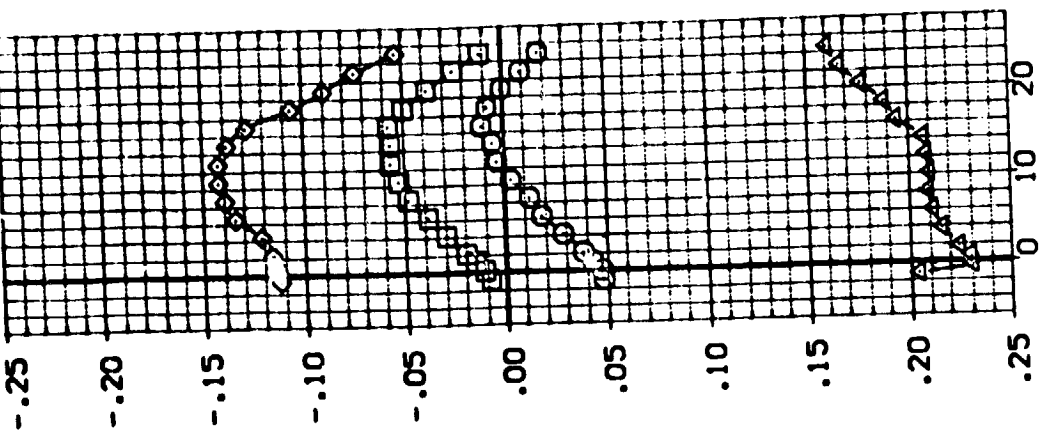
SREF	4.4119	50.00
UREF	19.2978	INC-ES
BREF	37.8319	INC-ES
YREF	43.5974	INC-ES
ZREF	16.2000	INC-ES
SCALE	.0405	SCALE

WING POS ELEVON

WING POS	ELEVON
159.000	.000
159.000	.000
159.000	.000
159.000	.000

WING POS ELEVON

WING POS	ELEVON
159.000	.000
159.000	.000
159.000	.000
159.000	.000



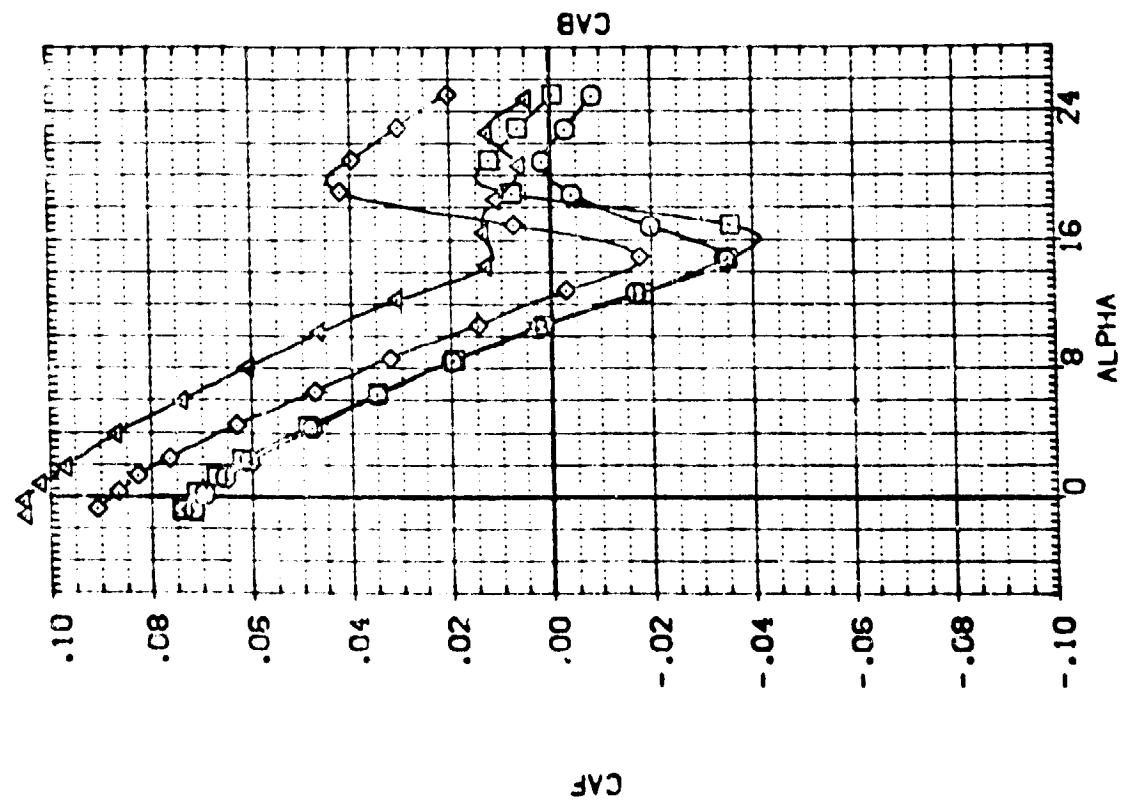
ELEVON EFFECTIVENESS. 2 FUSELAGE AND 2 WING ABES. HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16

PAGE 223

GP-PDS	ELEVON	MACH	LIP	REFERENCE INFORMATION
159.000	.000	.490	4.000	SREF 4.4119 SQ.FT.
159.000	5.000	.490	4.000	LSREF 13.2959 INCHES
159.000	15.000	.490	4.000	3REF 37.9319 INCHES
159.000	-20.000	.490	4.000	4REF 43.5874 INCHES
				TRRP .0000 INCHES
				LSRP 16.2000 INCHES
				SCALE .0405

DATA SET SYMBL	CO-FIGURATION	DESCRIPTION
(AD-285)	18.701.0405	058 8165507E 178312687E 1875X10-52
(AD-287)	18.701.0405	058 8165507E 178312687E 1875X10-52
(AD-288)	18.701.0405	058 8165507E 178312687E 1875X10-52
(AD-286)	18.701.0405	058 8165507E 178312687E 1875X10-52



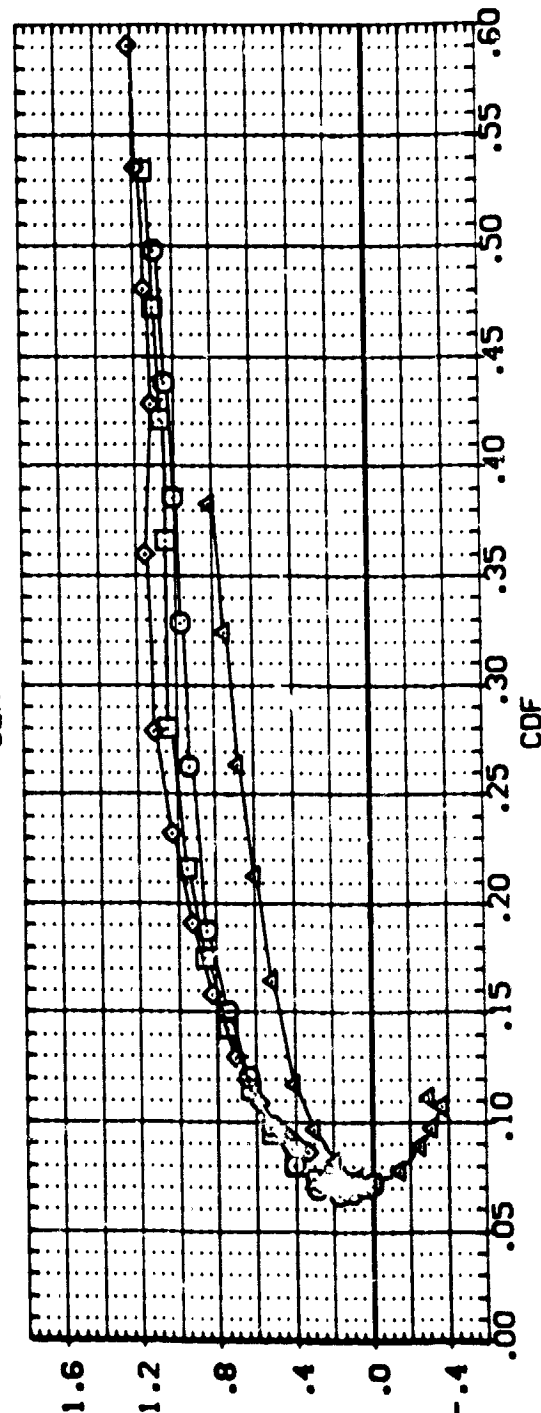
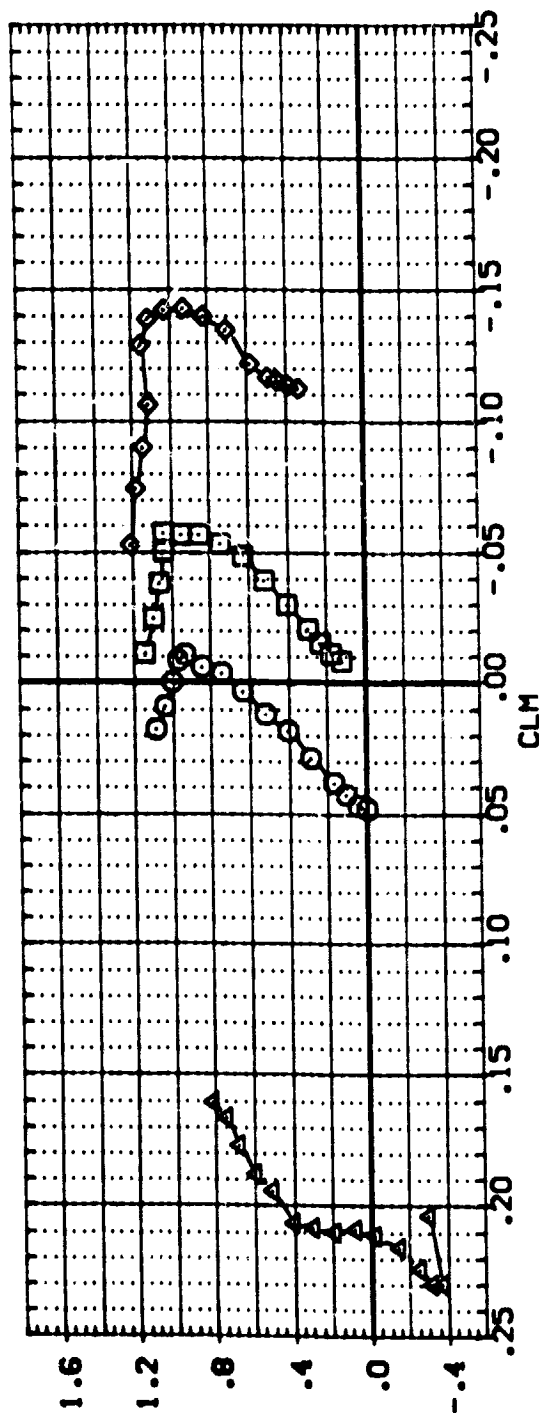
ELEVON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES, HGT. ABOVE GRND=159.0 INCHES  
 (A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(ADN085)	NR.701.0405 098	B16C507F J6G12V87VX10+GP
(ADN087)	NR.701.0405 098	B16C507F J6G12V87VX10+GP
(ADN088)	NR.701.0405 098	B16C507F J6G12V87VX10+GP
(ADN089)	NR.701.0405 098	B16C507F J6G12V87VX10+GP

GP-POS ELEVON MACVAL L<sup>2</sup> REFERENCE INFORMATION

GP-POS	ELEVON	MACVAL	L <sup>2</sup>	REF	REFERENCE INFORMATION
159.000	.000	.490	4.000	SRF	4.4119 50.FT.
159.000	5.000	.490	4.000	LREF	19.2999 INO-ES
159.000	15.000	.490	4.000	BREF	37.9349 INO-ES
159.000	-20.000	.490	4.000	XREF	43.5974 INO-ES
				YREF	.0000 INO-ES
				ZREF	16.2000 INO-ES
				SCALE	.0405



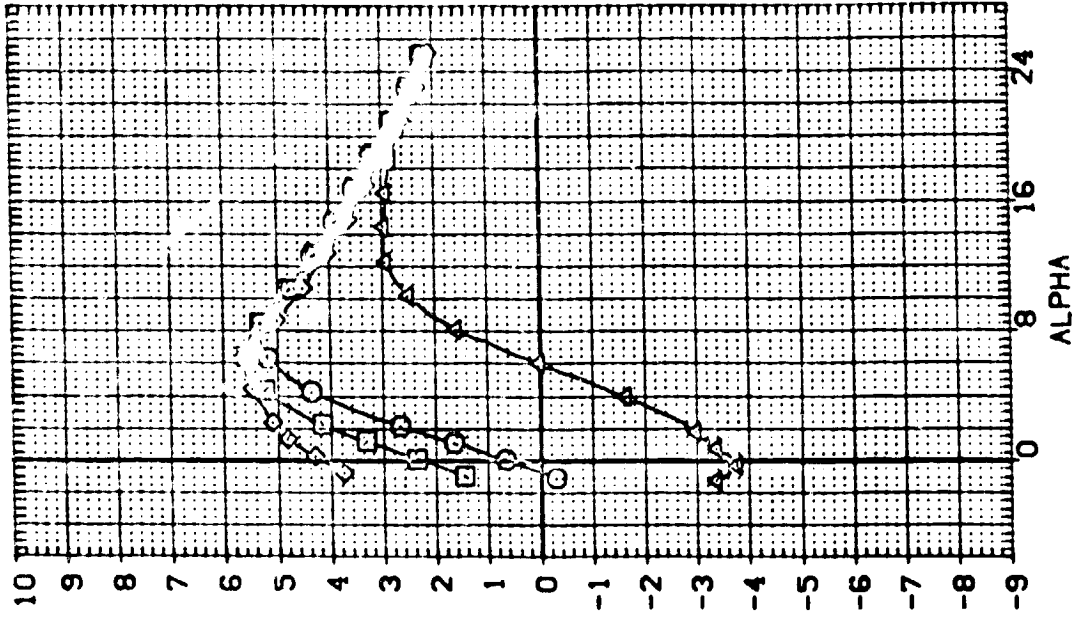
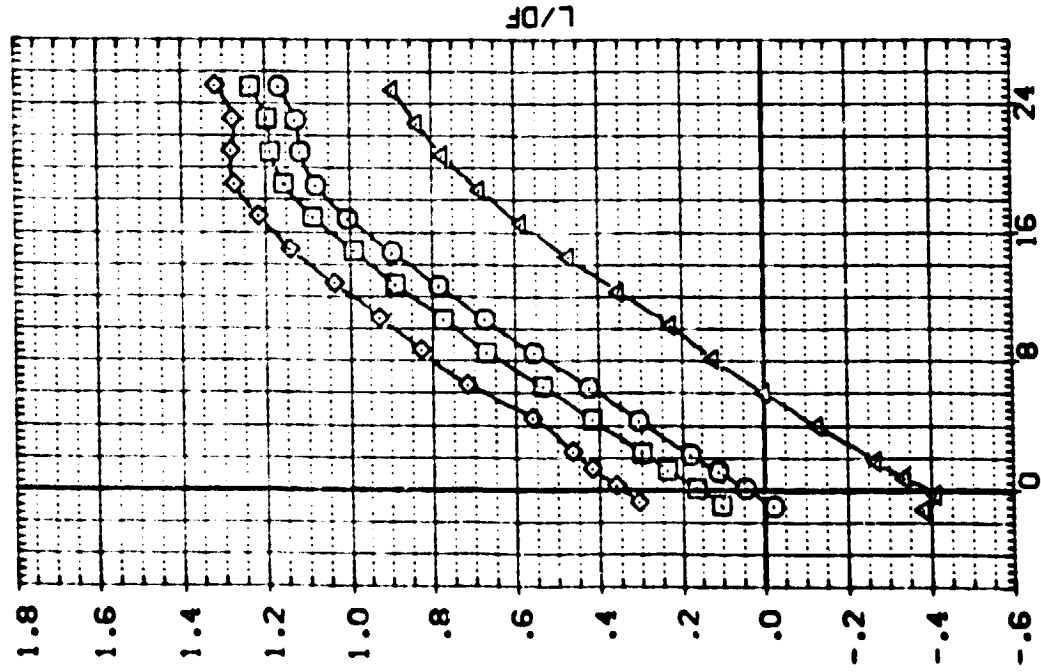
ELEVON EFFECTIVENESS, 2 FUSELAGE AND 2 WING ABES, HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ADG19) NR.701.0405 DB8 B16C507E 1J7G1 2467E18V3X10+GP  
 (ADG19) NR.701.0405 DB8 B16C507E 1J7G1 2467E18V3X10+GP  
 (ADG17) NR.701.0405 DB8 B16C507E 1J7G1 2467E18V3X10+GP  
 (ADG16) NR.701.0405 DB8 B16C507E 1J7G1 2467E18V3X10+GP

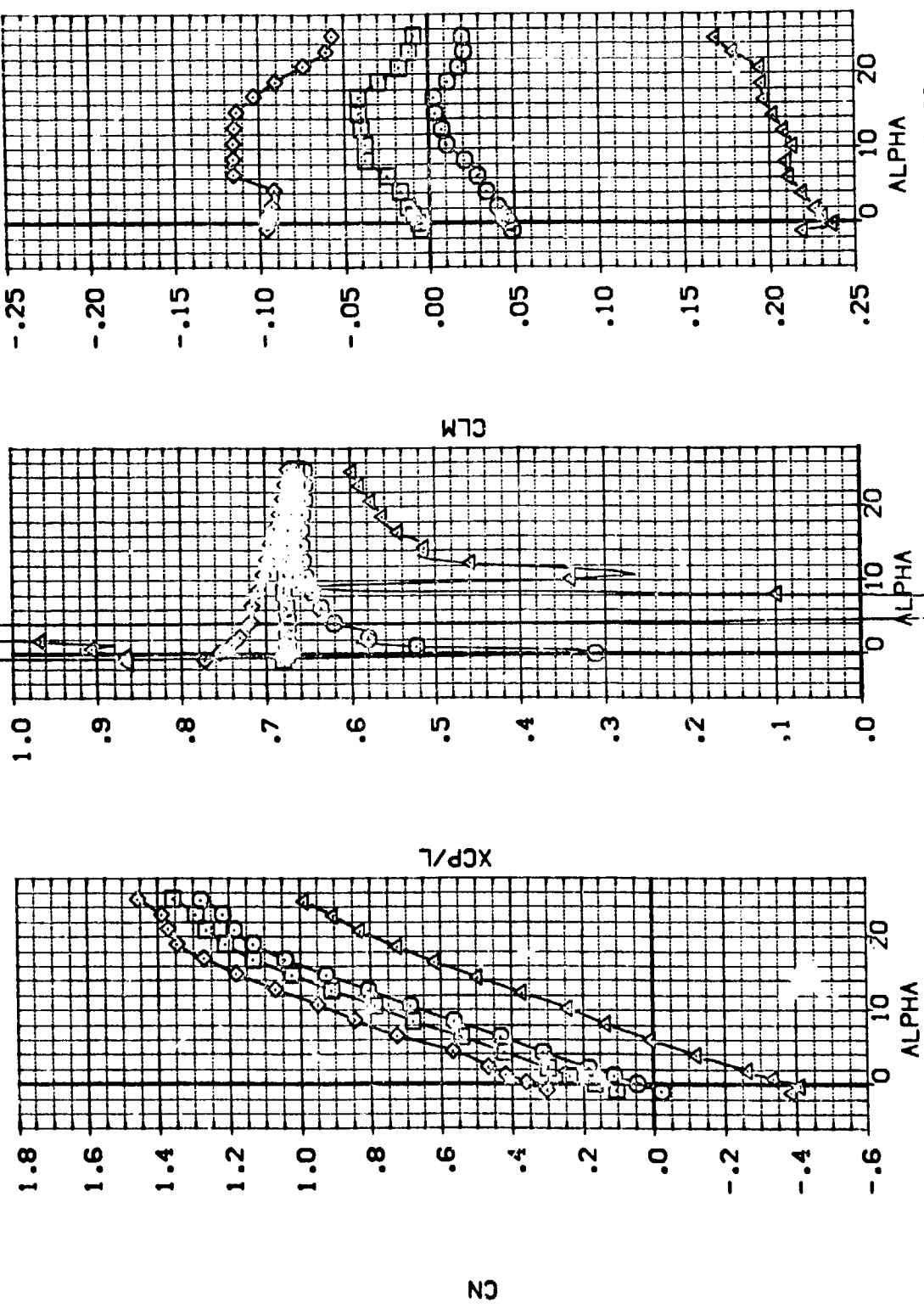
GP-PBS 159.000  
 ELEVON 5.000  
 NACAL 4.000  
 LIP 4.000  
 REF 4.4119  
 LINEF 19.2589  
 BREF 37.9319  
 XREF 43.5974  
 YREF 15.2000  
 ZREF 15.2000  
 SCALE .0405  
 REFERENCE INFORMATION  
 90.FY. 90.FY.  
 INCHES INCHES  
 INCHES INCHES  
 INCHES INCHES  
 INCHES INCHES



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND=159.0 INCHES

(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACA	LIP	REFERENCE INFORMATION
(ADG19)	NR.701.0405 098 818C507F 177612487E 18V5X10+GP	159.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
(ADG18)	NR.701.0405 098 818C507F 177612487E 18V5X10+GP	159.000	.000	.000	4.000	LREF 19.2593 INCHES
(ADG17)	NR.701.0405 098 818C507F 177612487E 18V5X10+GP	159.000	5.000	.000	4.000	RREF 37.8393 INCHES
(ADG16)	NR.701.0405 098 818C507F 177612487E 18V5X10+GP	159.000	-20.000	.000	4.000	YREF 43.5374 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405

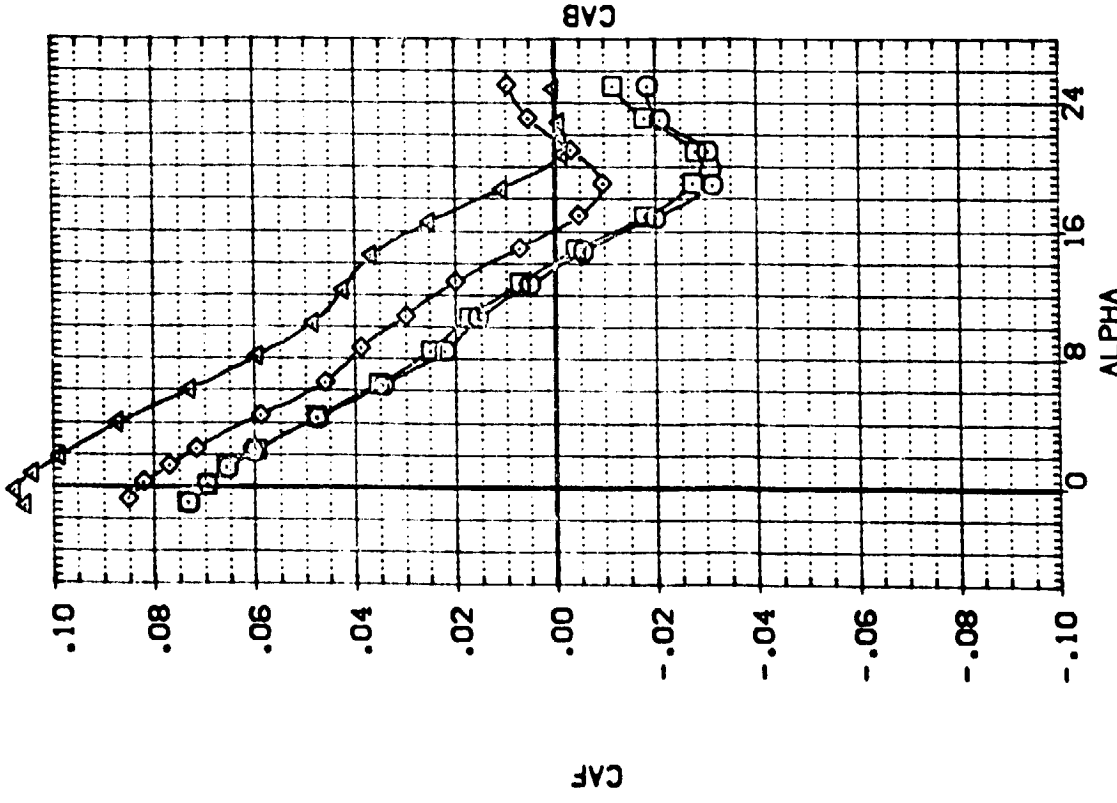


ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH. HGT. ABOVE GRND=159.0 INCHES

(AJMACH = .16

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    REFERENCE INFORMATION

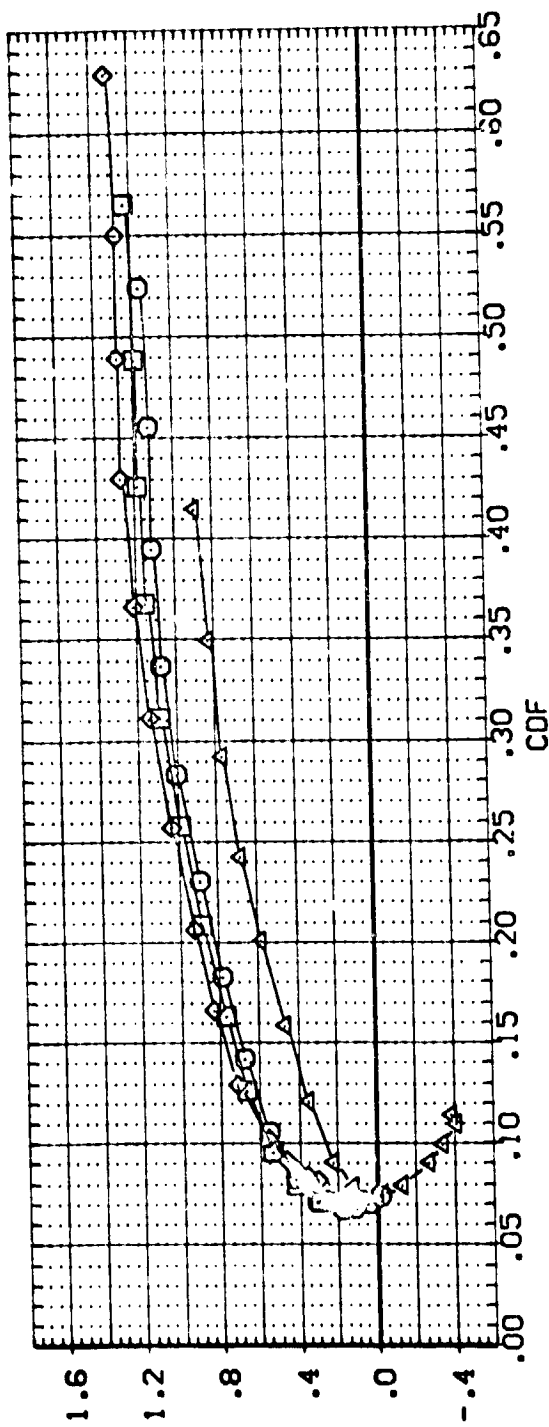
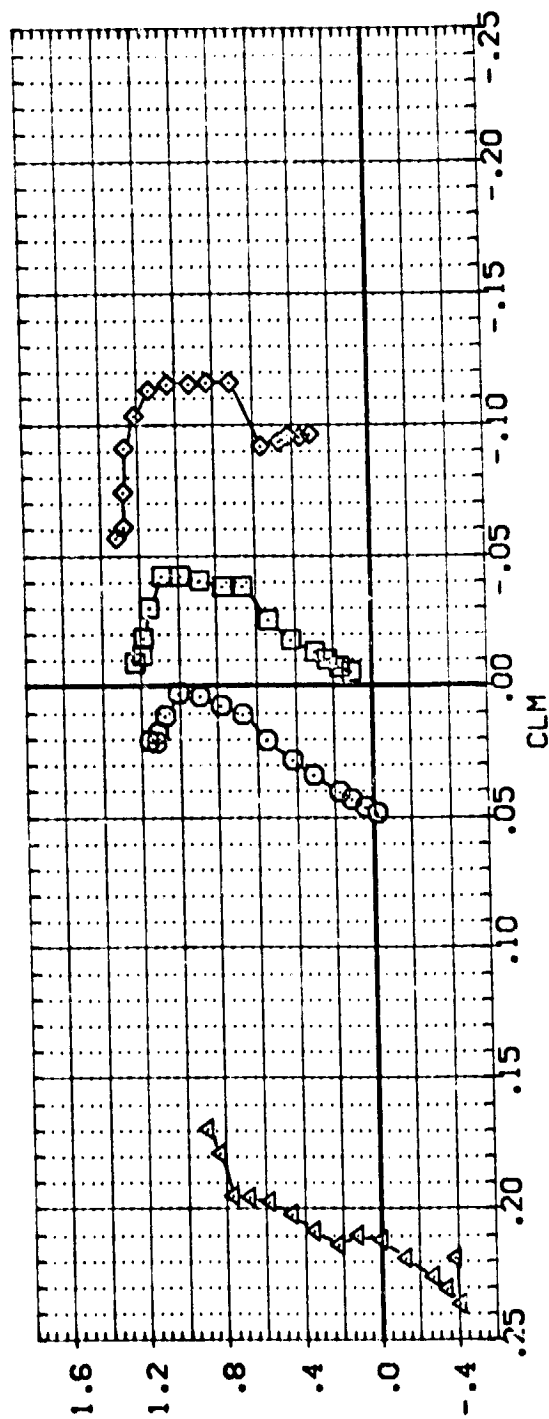
GP-POS	ELEVON	NACVAL	LIP	SREF	50-FT.
159.000	.000	.000	4.000	19.2399	INCHES
159.000	5.000	.000	4.000	37.9349	INCHES
159.000	15.000	.000	4.000	43.9974	INCHES
159.000	-20.000	.000	4.000	16.2000	INCHES
				16.2000	INCHES
				16.2000	SCALE



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND=159.0 INCHES

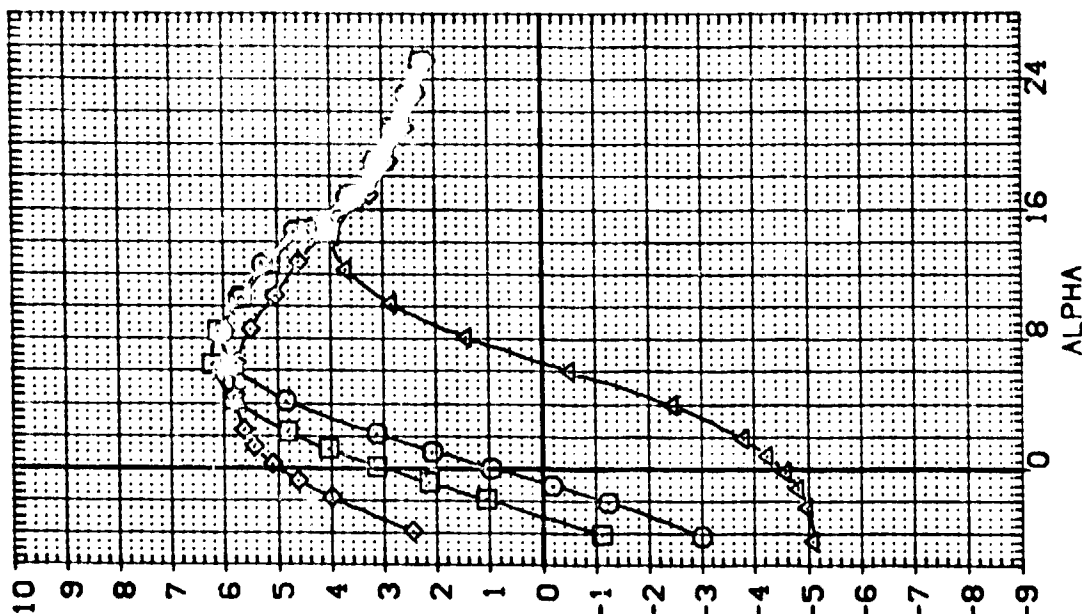
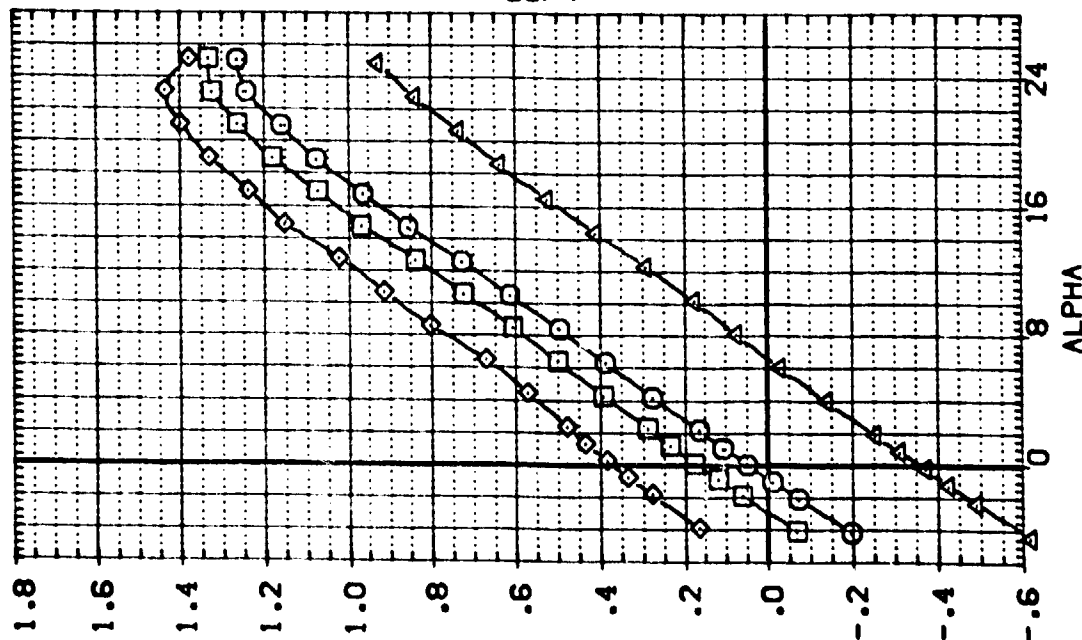
CAJ MACH = .16

DATA SET SYMBOL	CU.F. I GURATION DESCRIPTION	GP-FPS	ELEVON	NACA	LIP	REFERENCE INFORMATION
(ADG19)	NR.701.0405 DB8 B165007E 1476 2487V3X10+GP	159.000	0.00	0.00	4.000	SREF 4.4119 50.FT.
(ADG18)	NR.701.0405 DB8 B165007E 1476 2487E 18V3X10+GP	159.000	5.000	0.00	4.000	UREF 19.2999 100.FT.
(ADG17)	NR.701.0405 DB3 B165007E 1476 2487E 18V3X10+GP	159.000	15.000	0.00	4.000	BREF 37.1543 100.FT.
(ADG16)	NR.701.0405 DB8 B165007E 1476 2487E 18V3X10+GP	159.000	-20.000	0.00	4.000	YREF 43.5504 100.FT.
						ZREF 16.2000 100.FT.
						SCALE .0105



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND=159.0 INCHES

GP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION	50-FT.
09.000	.000	.000	4.000	SREF	INCHES
09.000	.000	.000	4.000	LREF	INCHES
09.000	5.000	.000	4.000	19.2998	INCHES
09.000	15.000	.000	4.000	37.9349	INCHES
09.000	-20.000	.000	4.000	43.5974	INCHES
				16.0000	INCHES
				16.2000	INCHES
				SCALE	SCALE
				.0405	



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 109.0 INCHES

**[A]MACH = .16**

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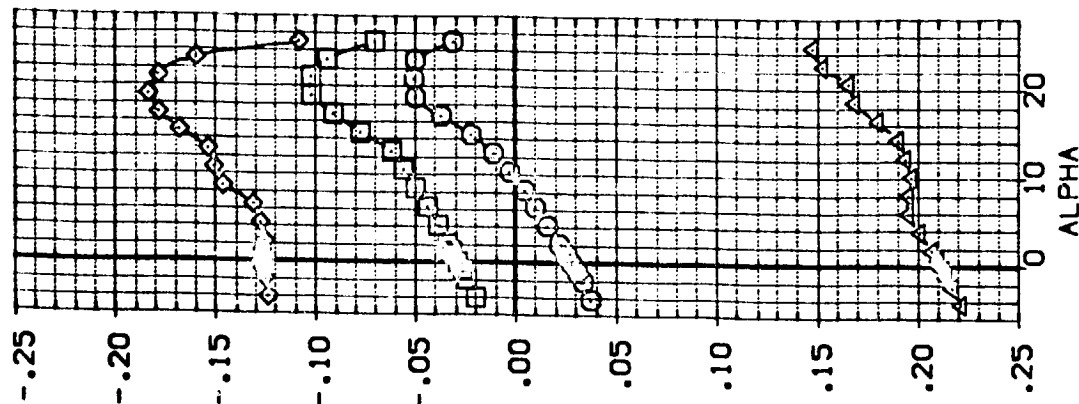
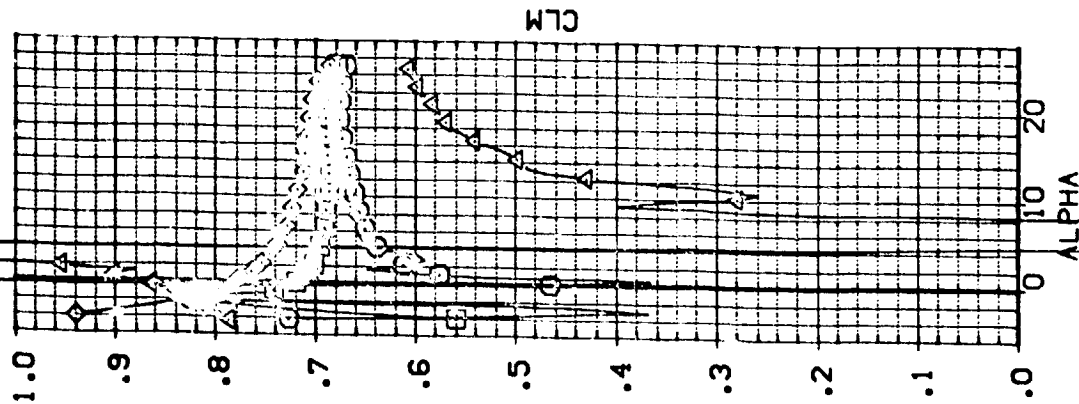
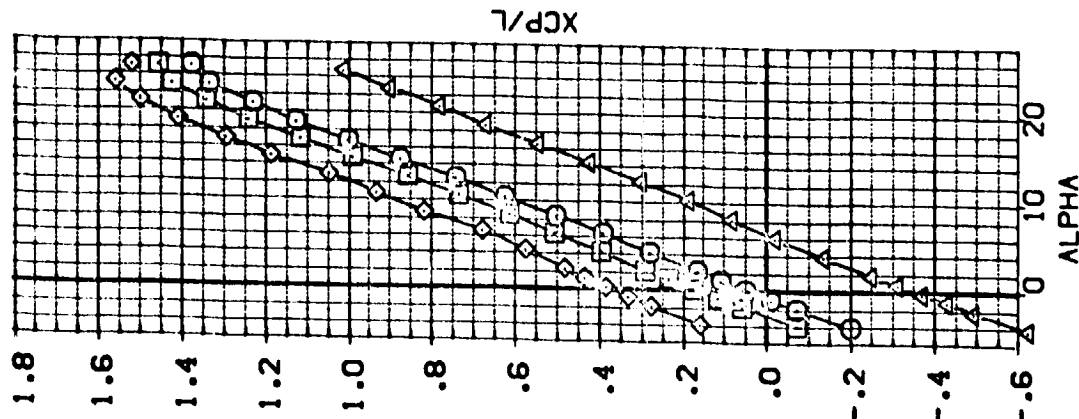
DATA SET SYMBOL CONF (GURATION DESCRIPTION

NR.701.0405 088 11165077 16124875X10+GP  
 NR.701.0405 088 11165077 16124875X10+GP  
 NR.701.0405 088 11165077 16124875X10+GP  
 NR.701.0405 088 11165077 16124875X10+GP

GP-POS ELEVON MAXVAL LIP

109.000 0.000 4.000  
 109.000 5.000 4.000  
 109.000 19.000 4.000  
 109.000 -20.000 4.000

REFERENCE INFORMATION  
 SREF 4.41.9 50.FT.  
 LREF 19.2553 INCHES  
 BREF 37.0019 INCHES  
 YREF 43.5374 INCHES  
 ZREF 0.0000 INCHES  
 SCALE 16.2000 INCHES  
 SCALE .0405



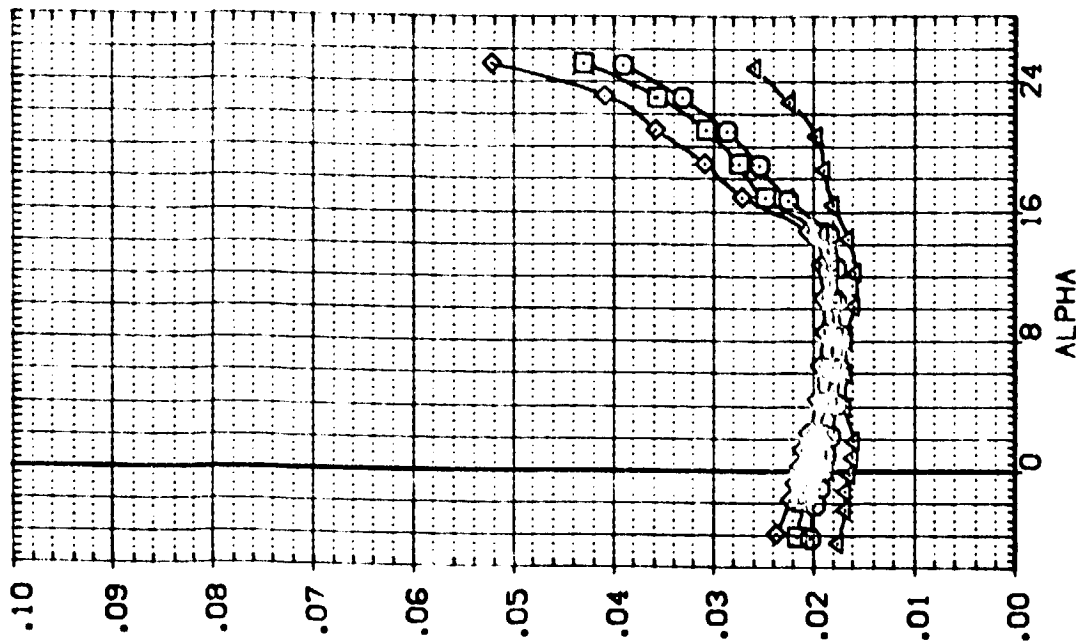
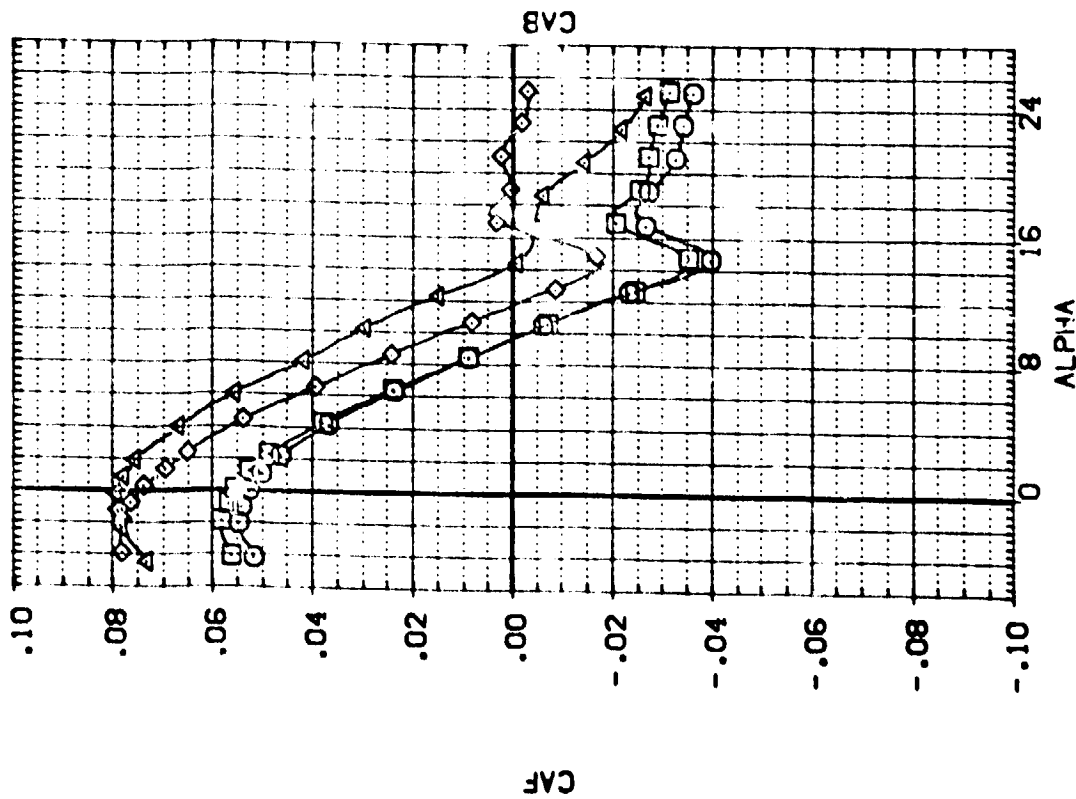
ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 109.0 INCHES

(A)MACH = .16

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(FD 064) NR 701 0405 058 B16C507F 16124876 18V5X 10-CP  
 (FD 063) NR 701 0405 058 B16C507F 16124876 18V5X 10-CP  
 (FD 062) NR 701 0405 058 B16C507F 16124876 18V5X 10-CP  
 (FD 061) NR 701 0405 058 B16C507F 16124876 18V5X 10-CP

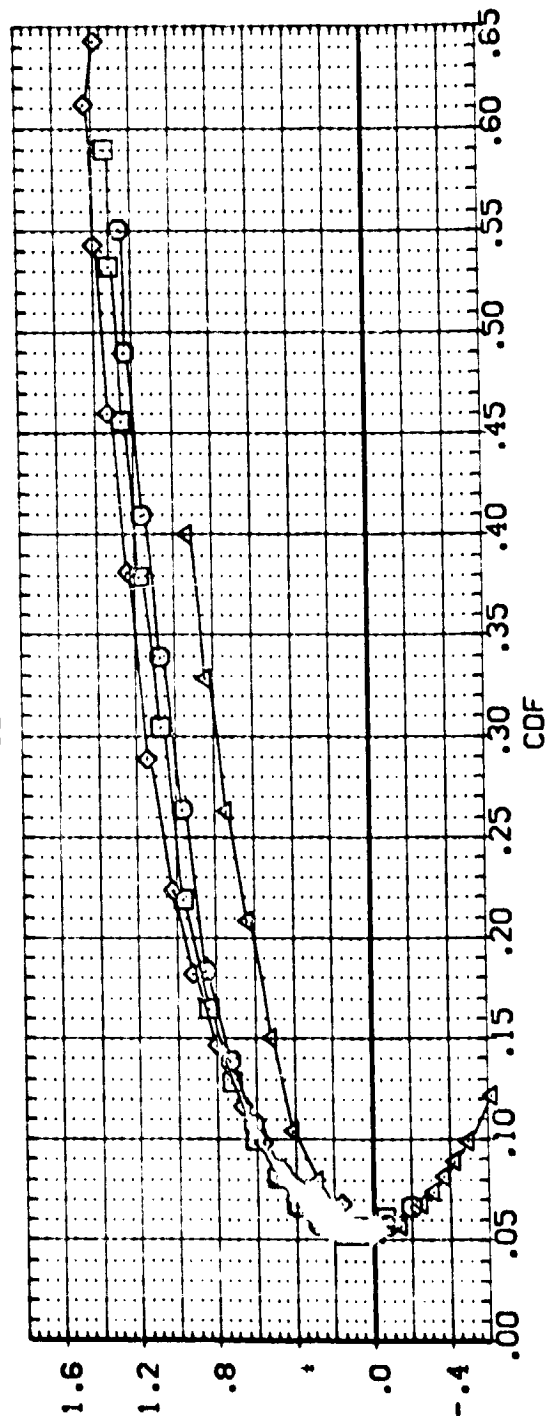
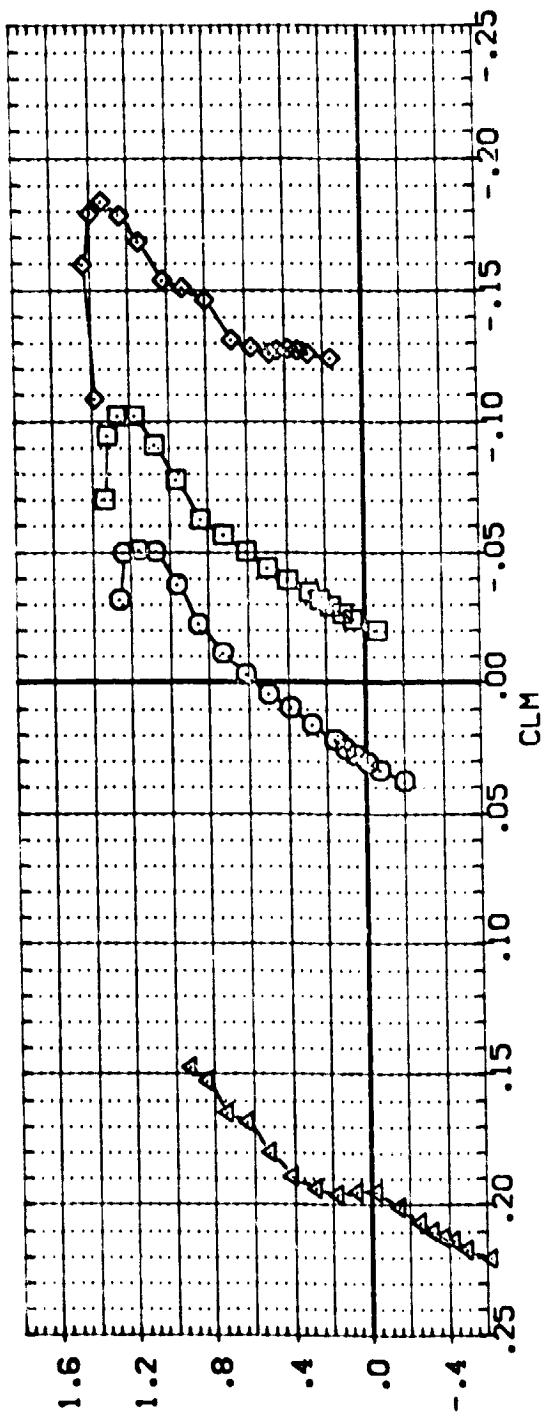
GP-POS ELEVON MACVA LIP REFERENCE INFORMATION  
 109.000 .000 4.000 SREF 4.4119 50.000  
 109.000 .000 4.000 LREF 19.2999 100.000  
 109.000 .000 4.000 XREF 37.5349 100.000  
 109.000 .000 4.000 YREF 43.5971 100.000  
 109.000 .000 4.000 ZREF 16.2000 100.000  
 109.000 .000 4.000 SCALE .0405



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 109.0 INCHES

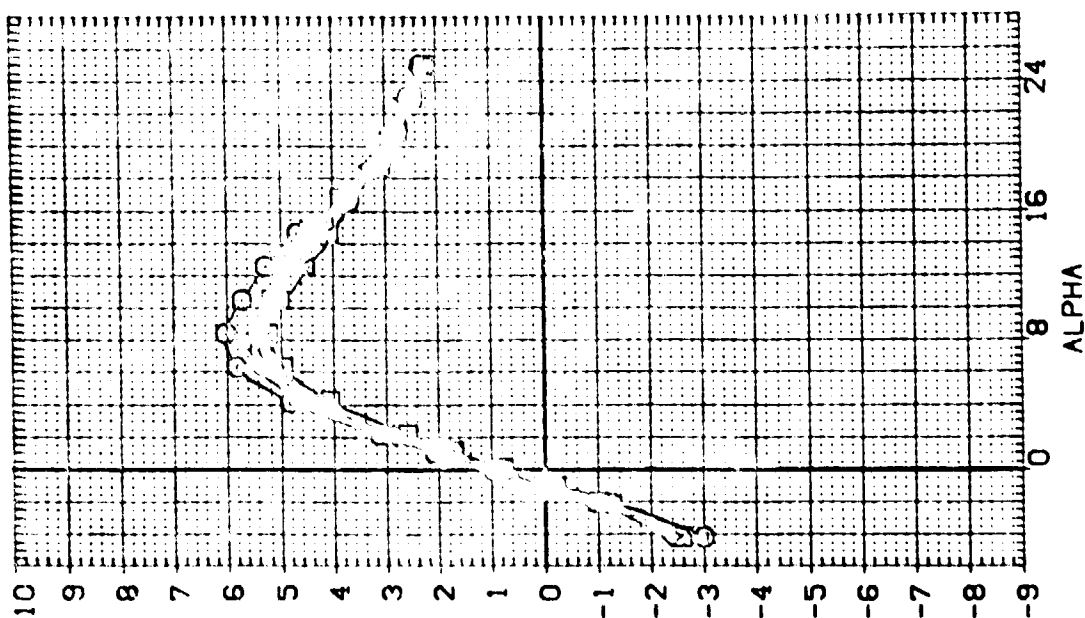
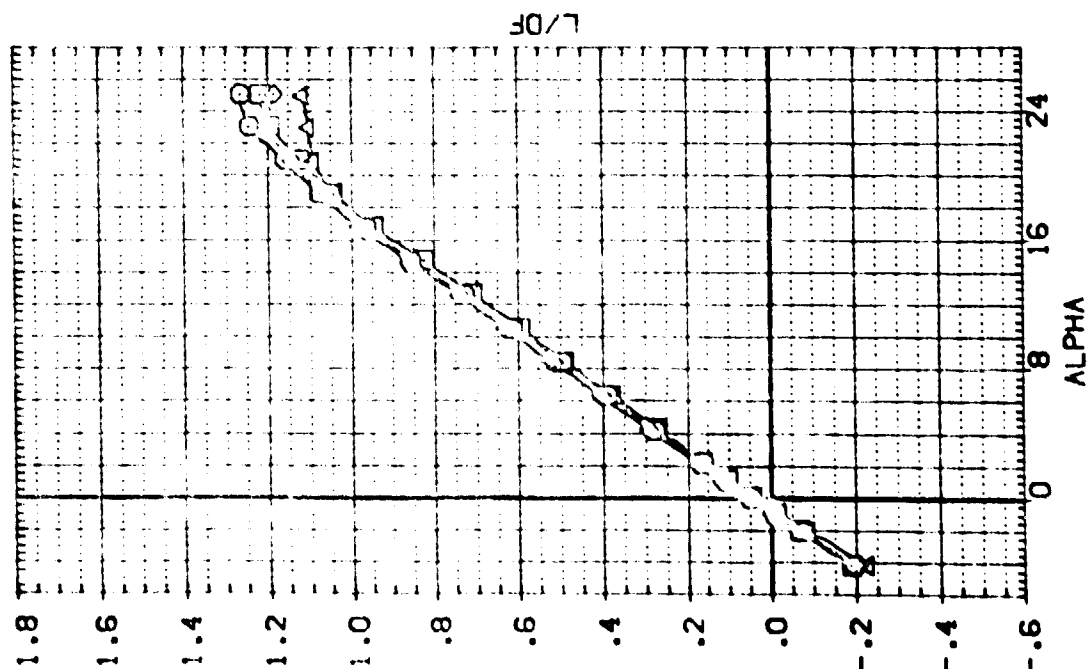
(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	OP-POS	ELEVON	MACVAL	LIP	REFERENCE INFORMATION
(FD-054)	NR. 701.0405 059 816 207F 161 2487E 18VX10+OP	109.000	1.000	0.00	4.000	SREF 4.4119
(FD-053)	NR. 701.0405 053 816 207F 161 2487E 18VX10+OP	109.000	5.000	0.00	4.000	LRJF 19.4023
(FD-062)	NR. 701.0405 058 816 207F 161 2487E 18VX10+OP	109.000	15.000	0.00	4.000	BRJF 37.6049
(FD-061)	NR. 701.0405 053 816 207F 161 2487E 18VX10+OP	109.000	-20.000	0.00	4.000	MRJF 43.6074
						MRJF 16.0000
						SCALE 16.0000
						INCHES



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 109.0 INCHES

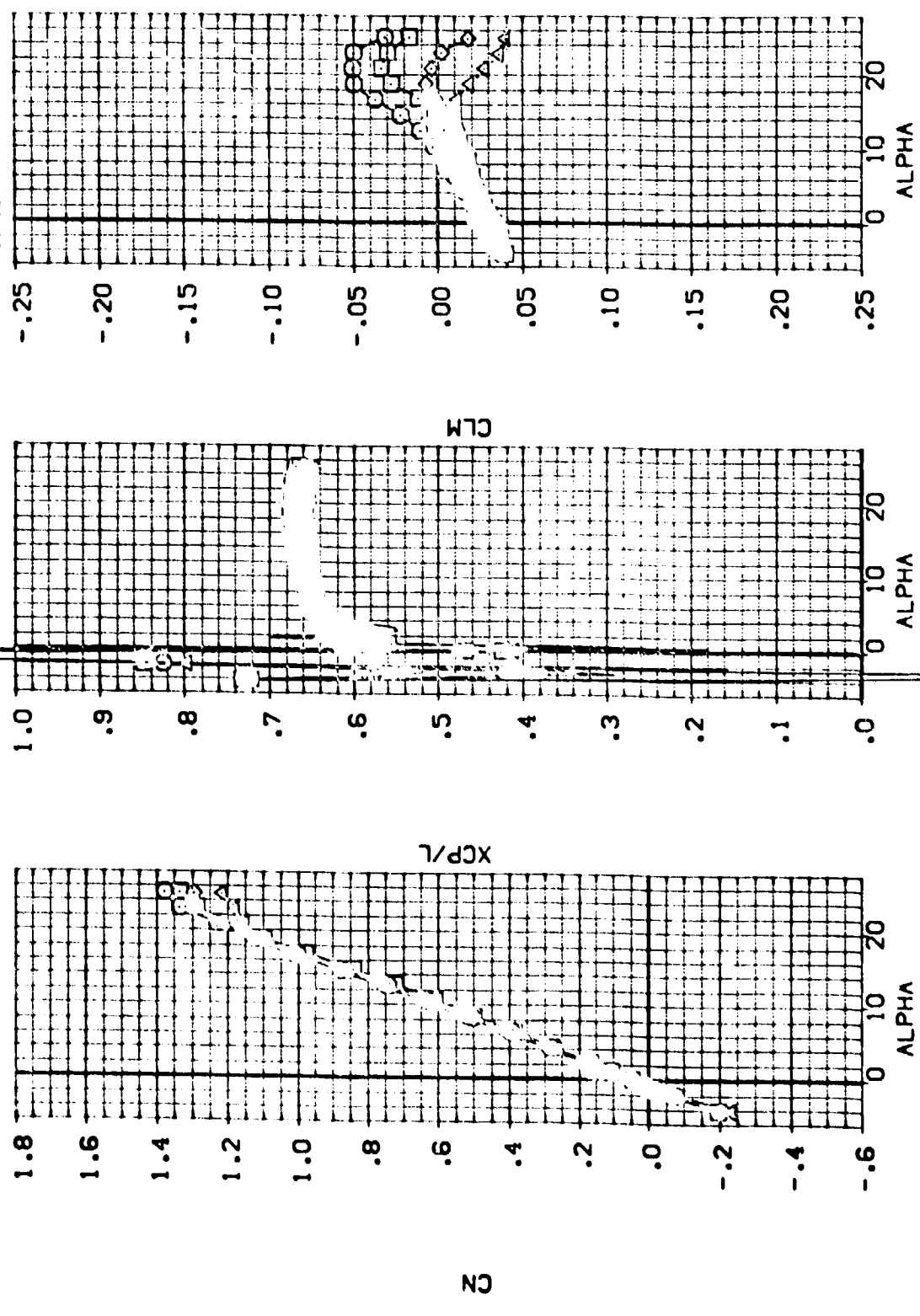
(A)MACH = .16

[illegible]

EFFECT OF ABES. HEIGHT ABOVE GROUND= 109.0 INCHES

$$\{A\}MACH = .16$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	B-FLAP	NACA/L	LIP	REFERENCE INFORMATION
[AD-024]	NP.701.0405 GP3 B16.507F 16.512V87VX10+GP	109.000	-18.000	.000	4.000	SREF 4.4119 SO.FT.
[AD-025]	NP.701.0405 GP3 B16.507F 16.512V87VX10+GP	109.000	-18.000	.000	4.000	LREF 19.0000 NO-ES
[AD-026]	NP.701.0405 GP3 B16.507F 16.512V87VX10+GP	109.000	-18.000	.000	4.000	EREF 37.0000 NO-ES
[AD-027]	NP.701.0405 GP3 B16.507F 16.512V87VX10+GP	109.000	-18.000	.000	4.000	XREF 43.0000 NO-ES
[AD-028]	NP.701.0405 GP3 B16.507F 16.512V87VX10+GP	109.000	-18.000	.000	4.000	YREF .0000 NO-ES
[AD-029]	NP.701.0405 GP3 B16.507F 16.512V87VX10+GP	109.000	-18.000	.000	4.000	ZREF 16.2000 NO-ES
[AD-030]	NP.701.0405 GP3 B16.507F 16.512V87VX10+GP	109.000	-18.000	.000	4.000	SCALE .0405

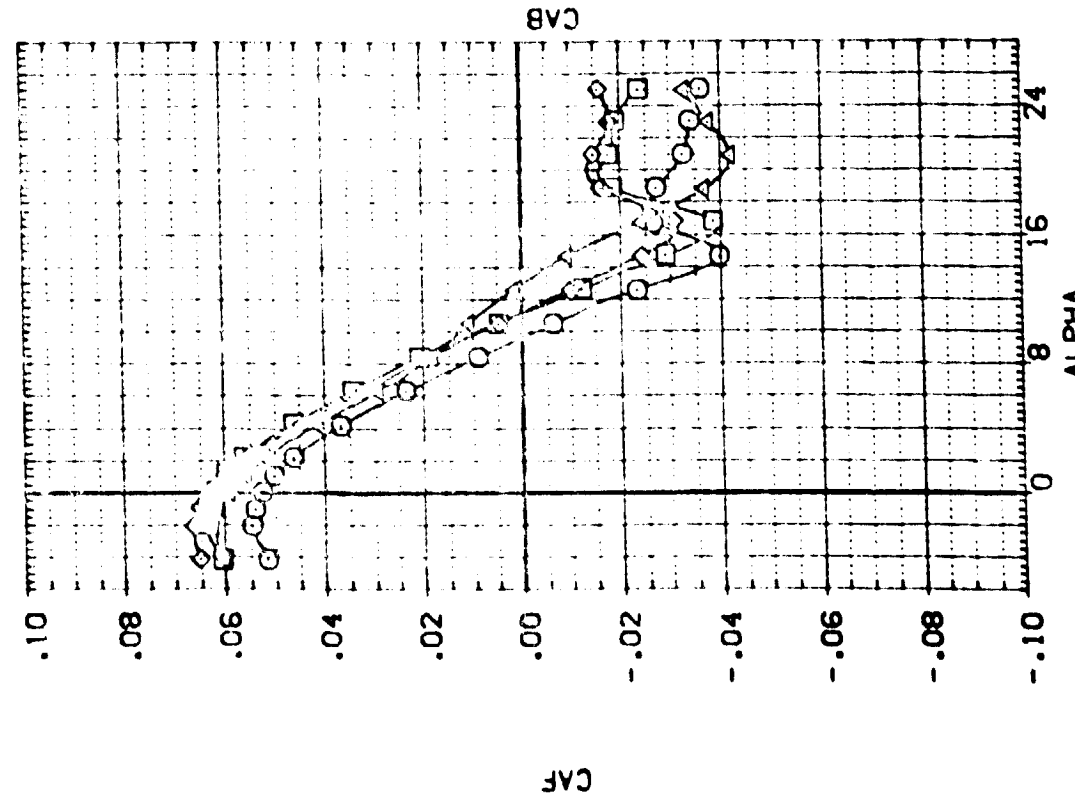
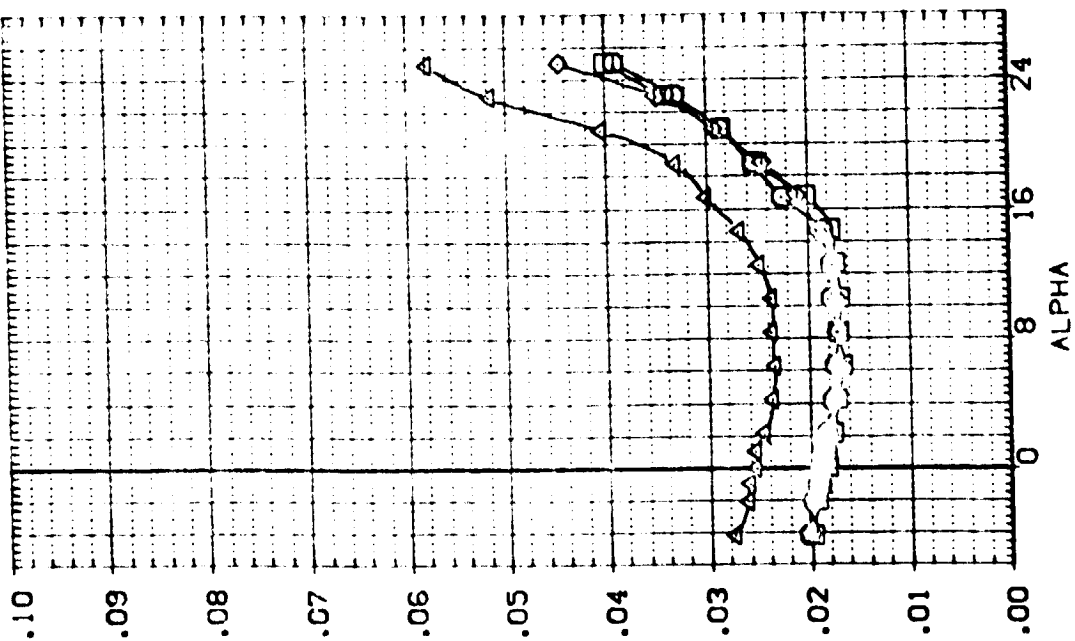


EFFECT OF ABES, HEIGHT ABOVE GROUND= 109.0 INCHES

(AJMACH = .16

CP-POS	B-FLAP	MACUL	LIP	SPEE	REFERENCE INFORMATION
109.000	-18.000	.000	4.000	4.4119	50.FT.
109.000	-18.000	.000	4.000	19.2858	NO-ES
109.000	-18.000	.000	4.000	37.5019	NO-ES
109.000	-18.000	.000	4.000	43.5574	NO-ES
109.000	-18.000	.000	4.000	16.0000	NO-ES
				16.2000	NO-ES
				16.2000	SCALE

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
FD-054	□	MR. 701.0405	058 B16C507E 1312.87V5X10-CP
AD-053	○	MR. 701.0405	058 B16C507E 1331.2487V5X10-CP
AD-054	△	MR. 701.0405	058 B16C507E 1430.2487V5X10-CP
AD-050	◇	MR. 701.0405	058 B16C507E 1470.2487V5X10-CP

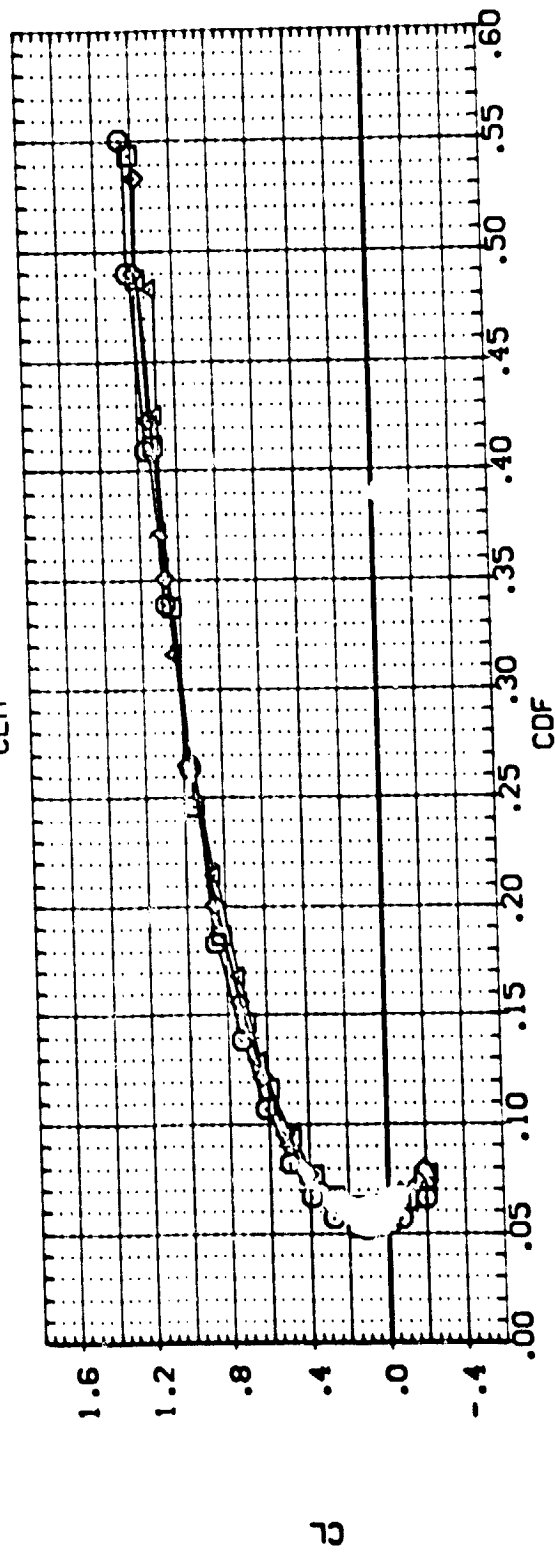
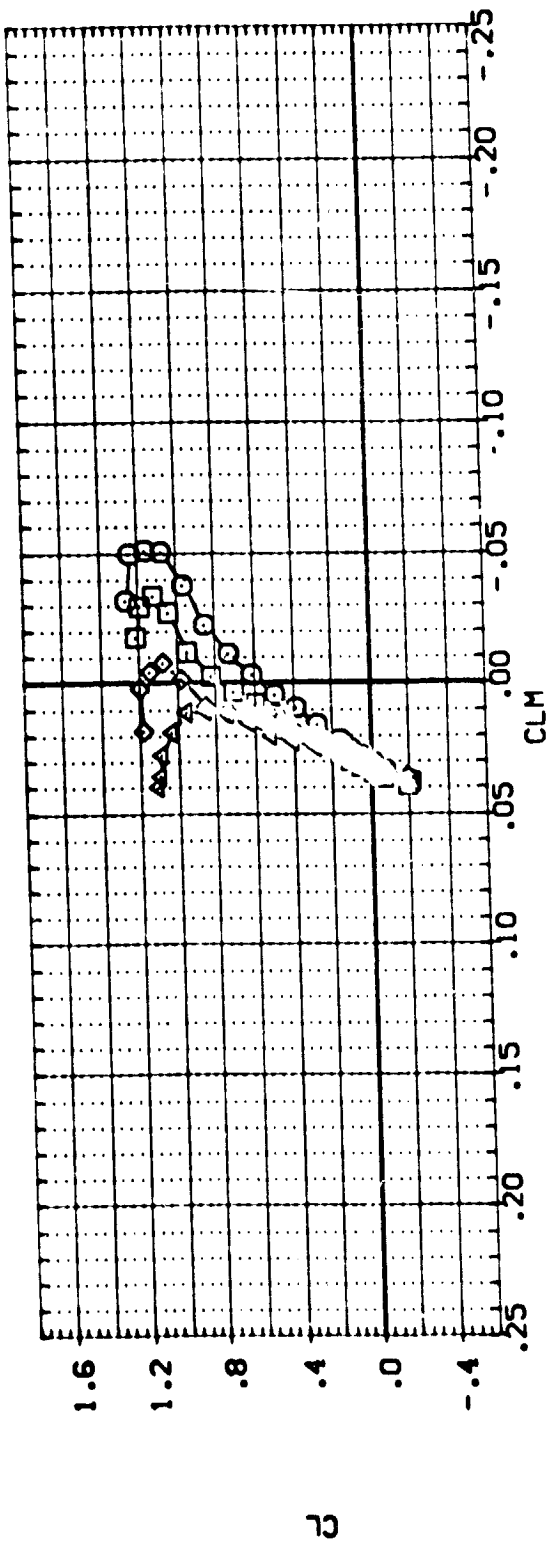


EFFECT OF ABES, HEIGHT ABOVE GROUND= 109.0 INCHES

(A)MACH = .16



DATA SET SYMBOL	CONF	IGRATION	DESCRIPTION	OP-POS	8-FLAP	NACVL	LIP	REFERENCE INFORMATION
(FDAG64)	NR	.701	.0405	028	B16C507E	1612487VX10+CP	4.000	SREF 4.4119 SQ.FT.
(ADG53)	NR	.701	.0405	028	B16C507E	1612487VX10+CP	4.000	LBEP 19.2939 INCHES
(ADG54)	NR	.701	.0405	028	B16C507E	1612487VX10+CP	4.000	BRCP 37.9449 INCHES
(ADG55)	NR	.701	.0405	028	B16C507E	1612487VX10+CP	4.000	YHBP 43.5874 INCHES
(ADG56)	NR	.701	.0405	028	B16C507E	1612487VX10+CP	4.000	ZHBP 16.2000 INCHES
								SCALE .0405



EFFECT OF ABES, HEIGHT ABOVE GROUND= 109.0 INCHES

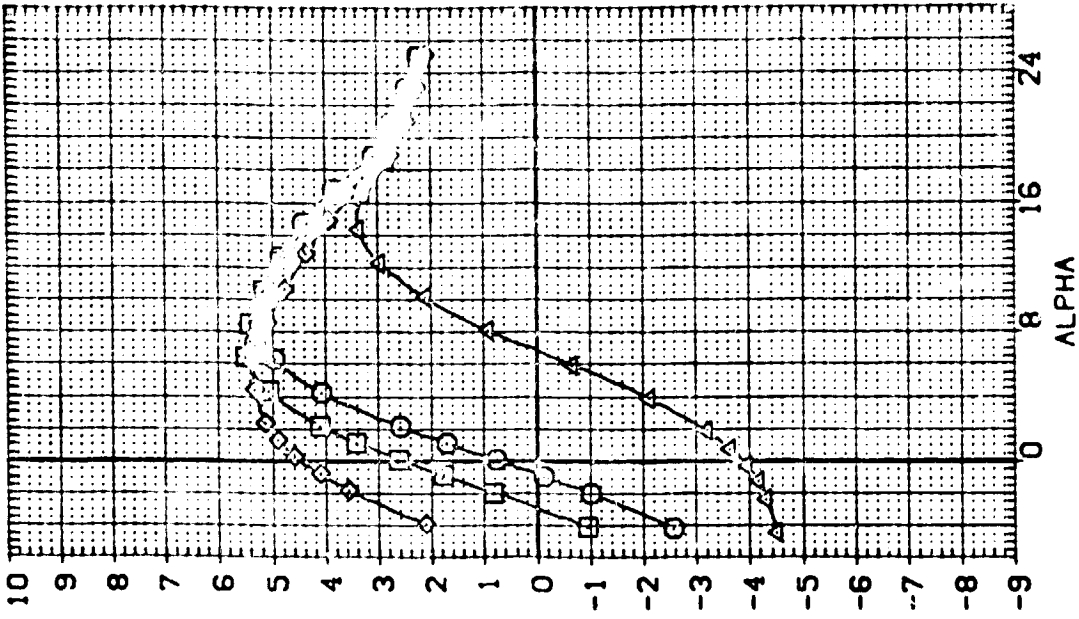
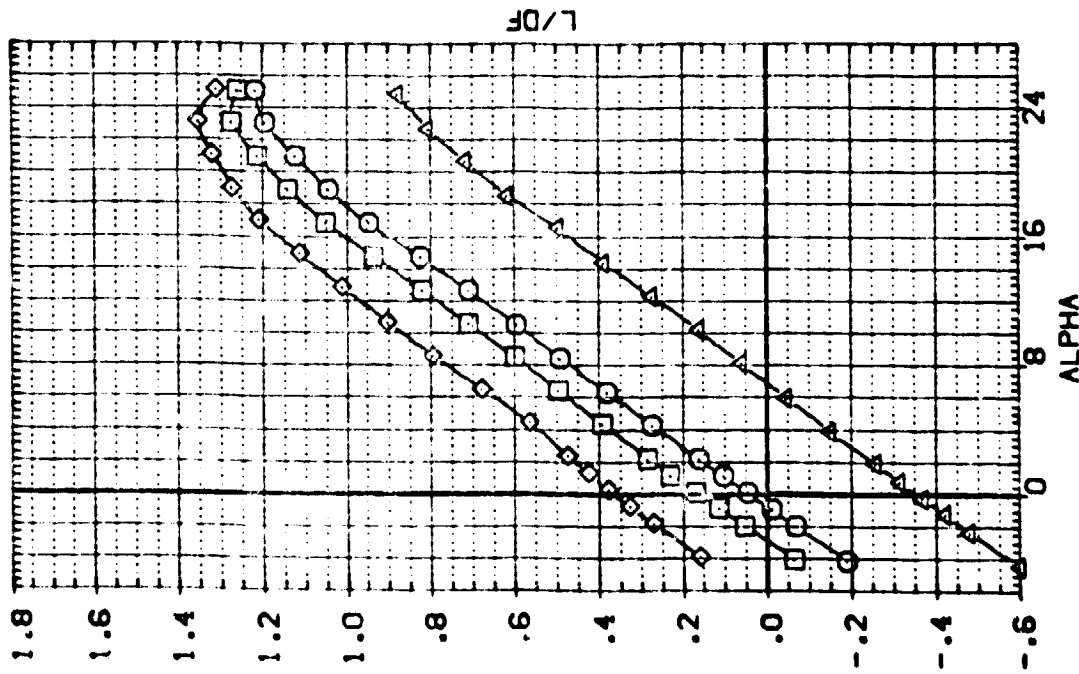
(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

NR. 701 .0405 098 816C507F 1J3612V87E18V5X10+GP  
 NR. 701 .0405 098 816C507F 1J3612V87E18V5X10+GP  
 NR. 701 .0405 098 816C507F 1J3612V87E18V5X10+GP  
 NR. 701 .0405 098 816C507F 1J3612V87E18V5X10+GP

GP-POS ELEVON NACA/L LIP REFERENCE INFORMATION SQ.FT. INCHES

109.000 4.000 4.000 SREF 4.4119 19.2558 19.2558 INCHES  
 109.000 4.000 4.000 LREF 37.9349 43.9374 43.9374 INCHES  
 109.000 4.000 4.000 XREF 16.2000 16.2000 16.2000 INCHES  
 109.000 4.000 4.000 YREF 16.2000 16.2000 16.2000 INCHES  
 109.000 4.000 4.000 ZREF 16.2000 16.2000 16.2000 INCHES  
 109.000 4.000 4.000 SCALE .0405

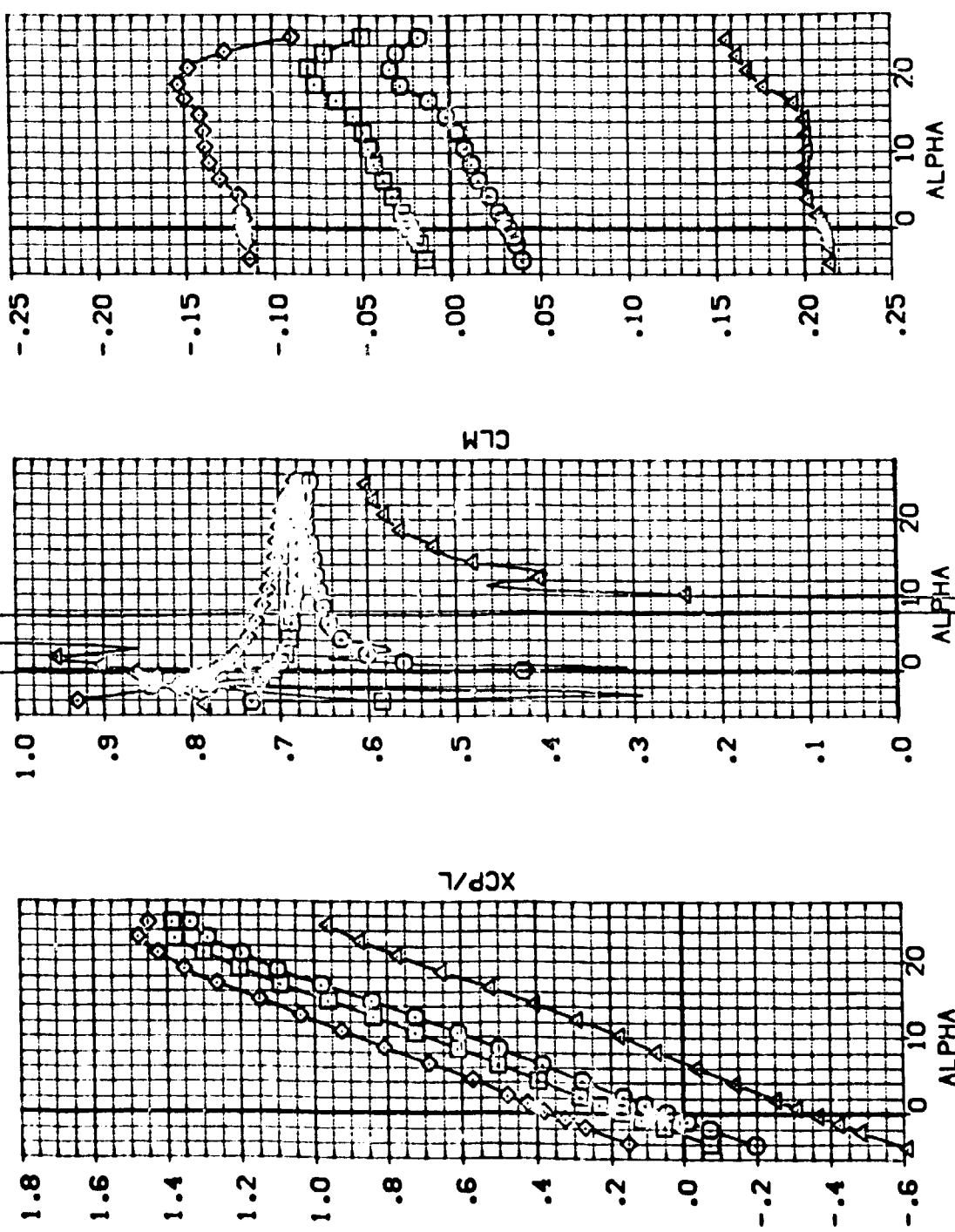


ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 109.0 INCHES  
 (A)MACH = .16





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
(ADG53)	MR.701.0405 088 816.507F 173612467E18VX10+GP	129.000	.000	.000	4.000	SREF 4.4119 50.FT. INCHES
(ADG52)	MR.701.0405 088 816.507F 173612467E18VX10+GP	129.000	5.000	.000	4.000	LREF 19.2338 INCHES
(ADG51)	MR.701.0405 088 816.507F 173612467E18VX10+GP	129.000	15.000	.000	4.000	BREF 37.5249 INCHES
(ADG50)	MR.701.0405 088 816.507F 173612467E18VX10+GP	129.000	-20.000	.000	4.000	XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 109.0 INCHES  
(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AUG53) 10.701 0405 098 8165076 13612687618VX10+GP

(AUG52) 10.701 0405 098 8165076 13612687618VX10+GP

(AUG51) 10.701 0405 098 8165076 13612687618VX10+GP

(AUG50) 10.701 0405 098 8165076 13612687618VX10+GP

3-POS ELEVON MACUL LIP REFERENCE INFORMATION

109.000 .000 4.000 SREF 4.4119 SQ.FT.

109.000 .000 4.000 LREF 19.2939 INCHES

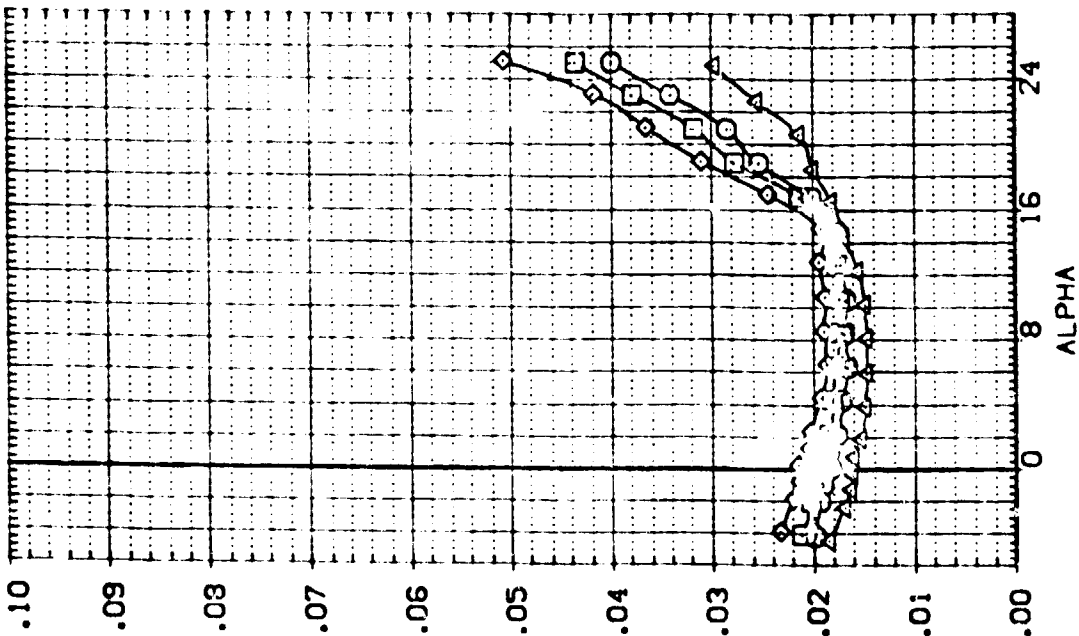
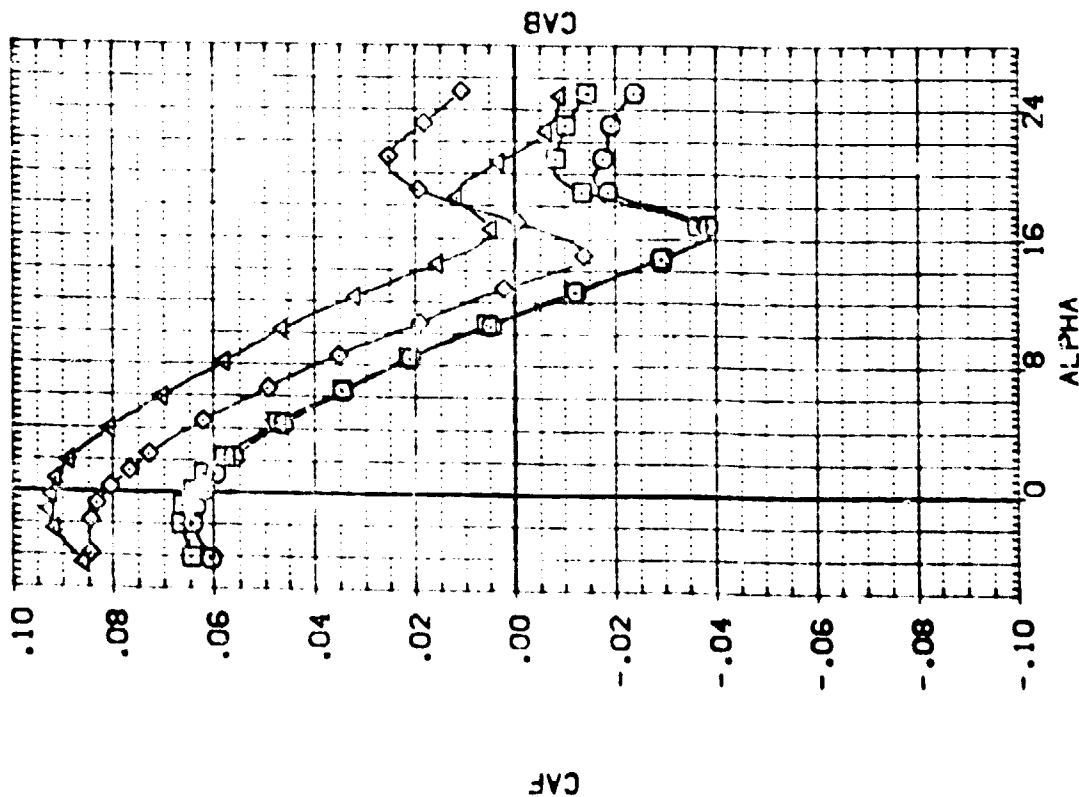
109.000 .000 4.000 BREF 37.9349 INCHES

109.000 .000 4.000 XREF 43.5974 INCHES

109.000 .000 4.000 YREF 16.2000 INCHES

109.000 .000 4.000 ZREF 16.2000 INCHES

SCALE .0405

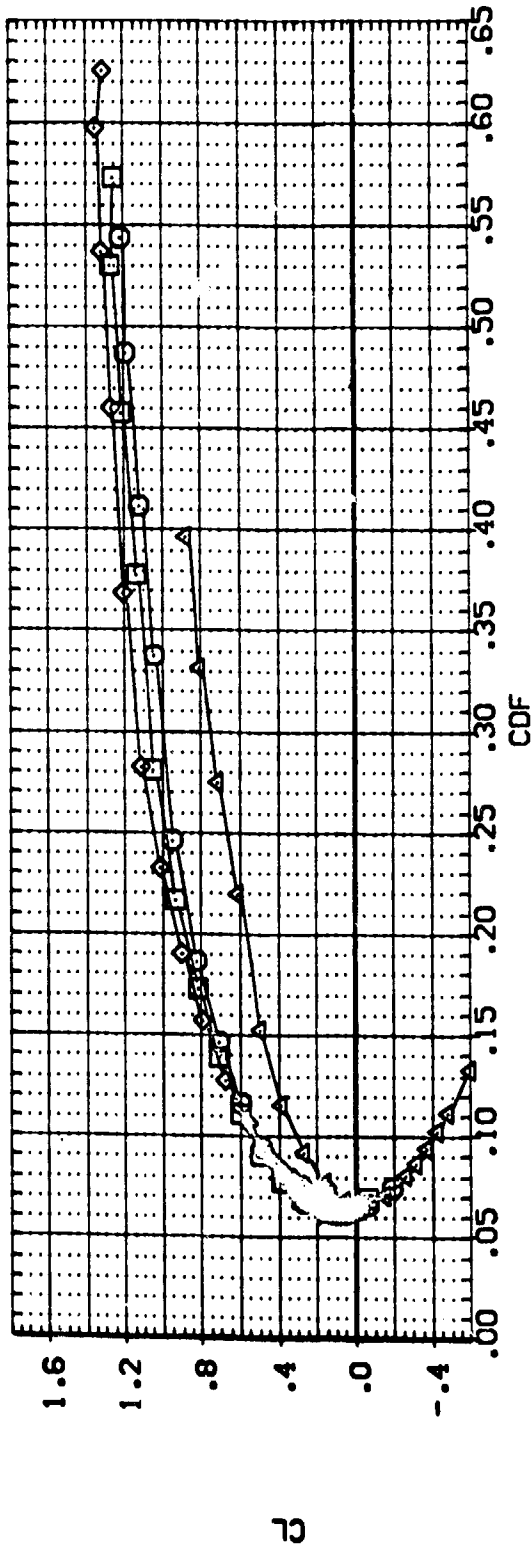
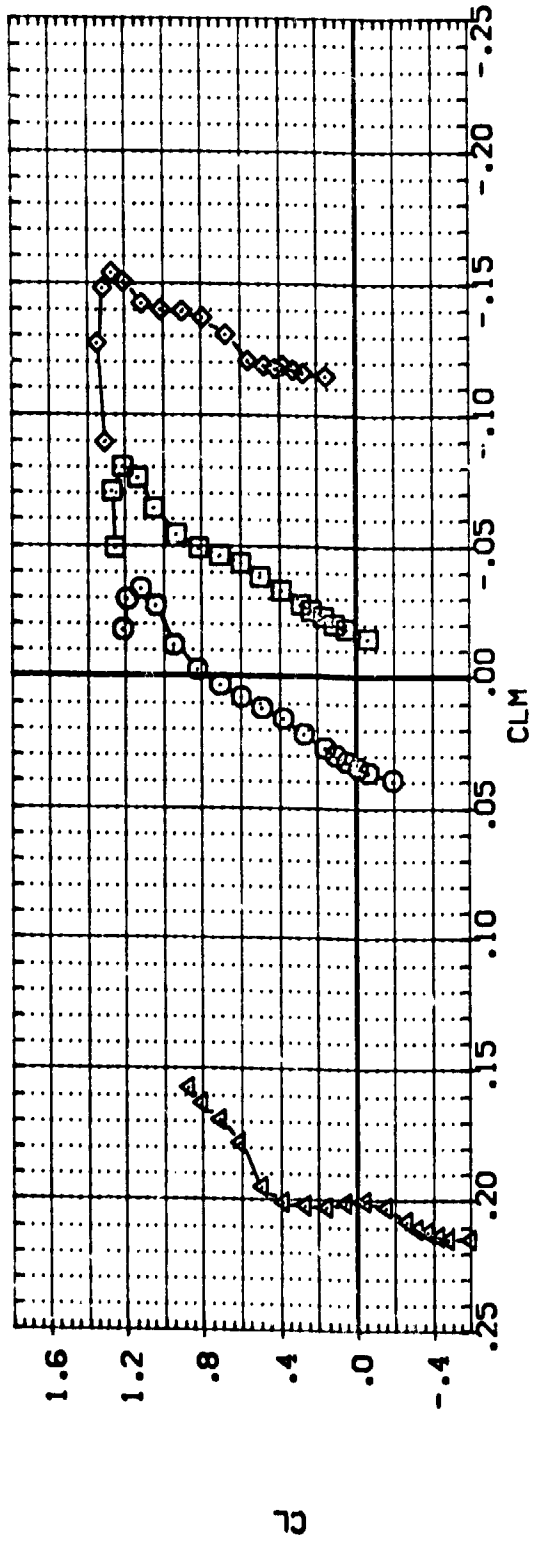


ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 109.0 INCHES

(A)MACH = .16



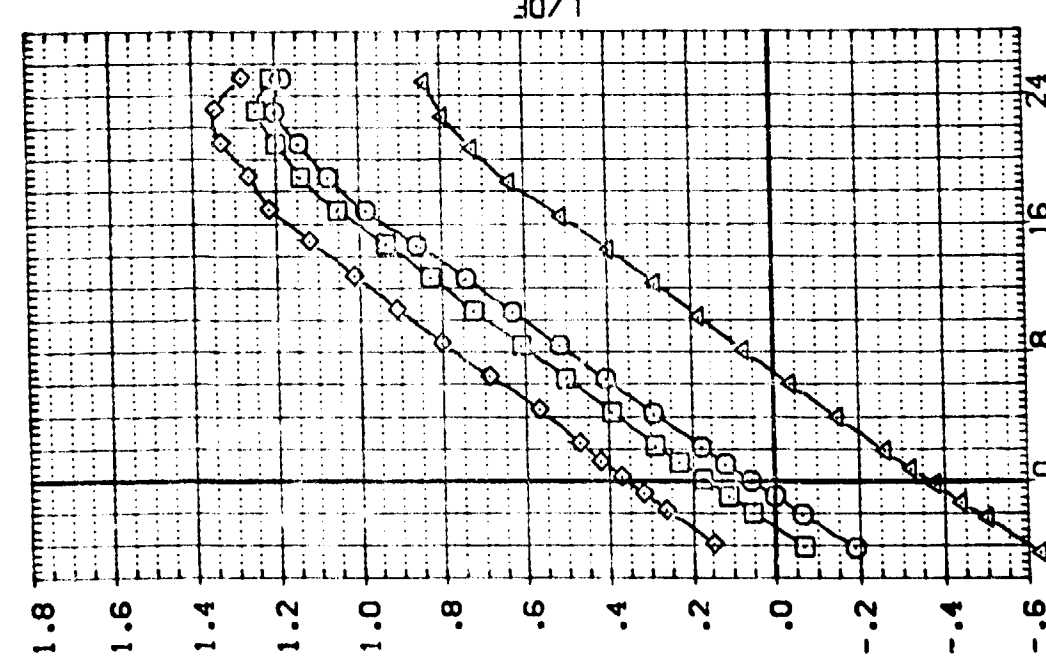
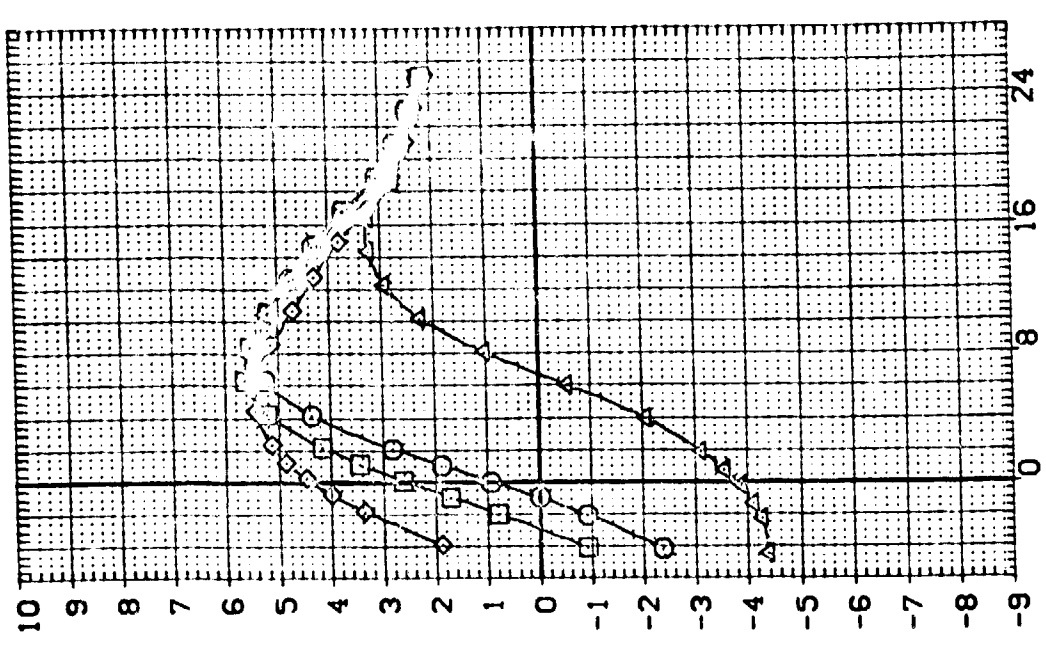
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP POS	ELEVON	NAC/L	LIP	REFERENCE INFORMATION
(ADN253)	NR.701.0405 088 B16C507F1J3312V87V5X10+GP	109.000	.000	.000	4.000	SREF 4.4119 50.FT.
(ADN252)	NR.701.0405 088 B16C507F1J3312V87E18V5X10+GP	109.000	.000	.000	4.000	LREF 19.2839 INCHES
(ADN251)	NR.701.0405 088 B16C507F1J3312V87E18V5X10+GP	109.000	5.000	.000	4.000	BREF 37.5349 INCHES
(ADN250)	NR.701.0405 088 B16C507F1J3312V87E18V5X10+GP	109.000	-20.000	.000	4.000	XREF 43.5974 INCHES
						YREF .0000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 109.0 INCHES

GP-POS ELEVON NACA/L LIP REFERENCE INFORMATION SQ.FT.  
 109.000 0.000 0.000 SREF 4.4119 INCHES  
 109.000 5.000 0.000 LREF 19.2558 INCHES  
 109.000 15.000 0.000 XREF 37.5319 INCHES  
 109.000 20.000 0.000 YREF 43.5574 INCHES  
 109.000 20.000 0.000 ZREF 16.2000 INCHES  
 109.000 20.000 0.000 SCALE .0405

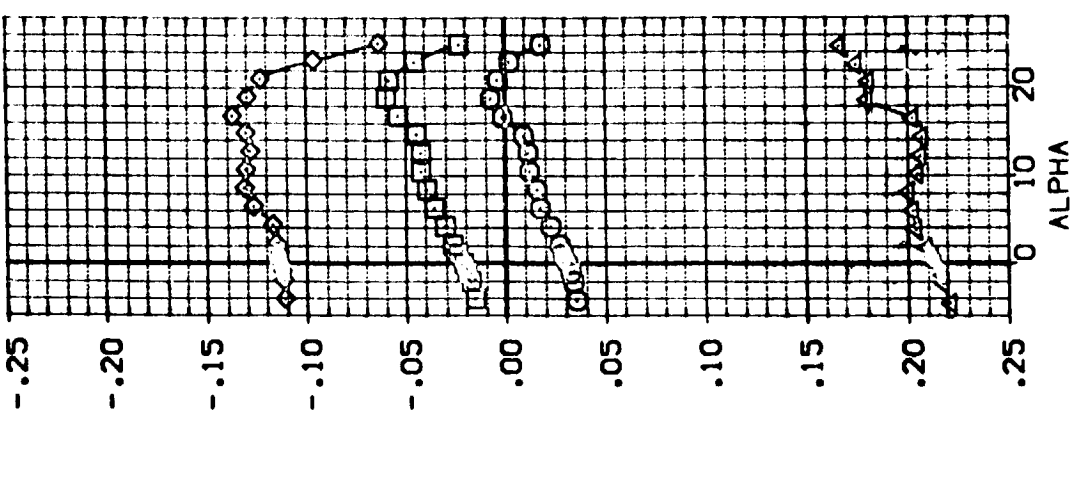
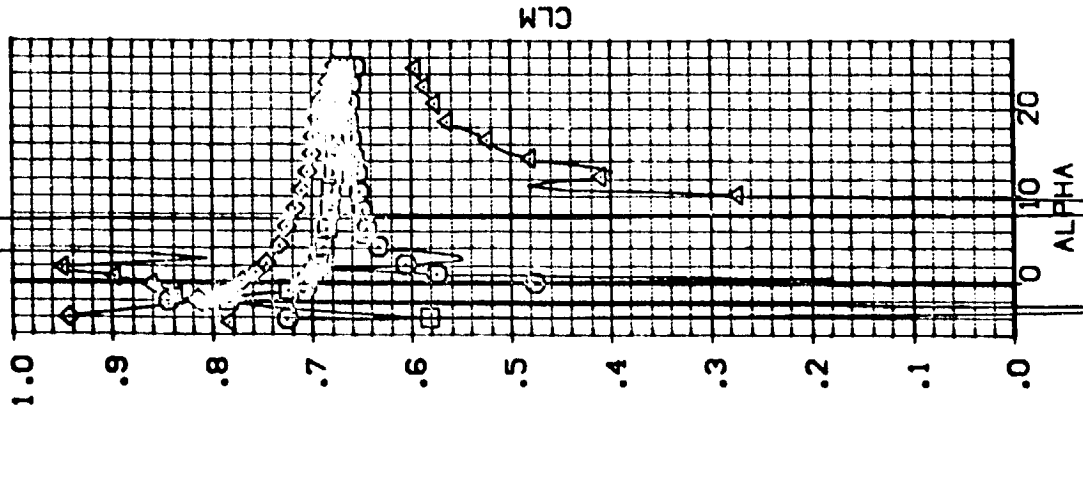
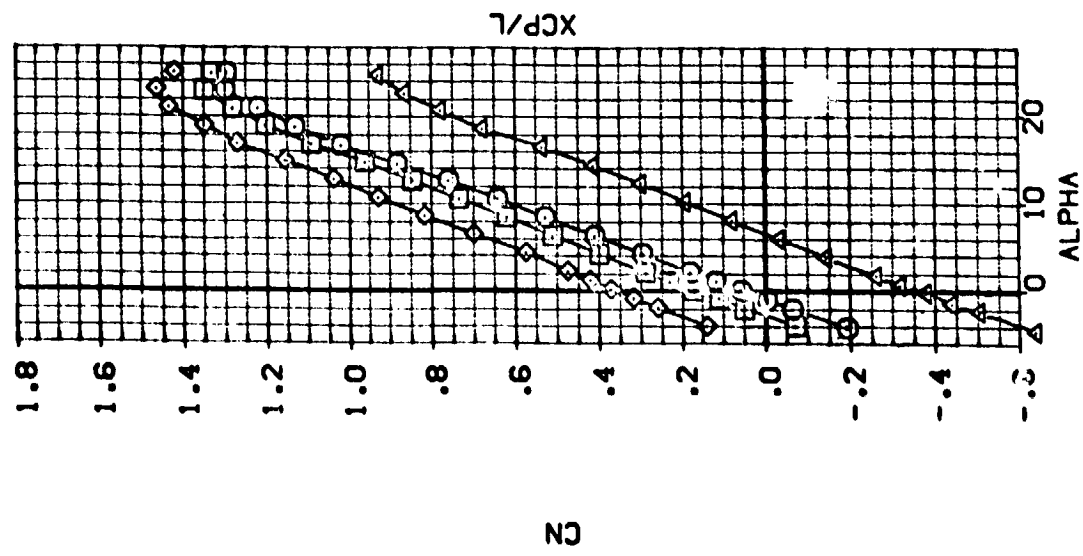
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ADN254) NR.701.0405 098 816C507F 15G12V87V5X10+GP  
 (ADN255) NR.701.0405 098 816C507F 15G12V87E18V5X10+GP  
 (ADN256) NR.701.0405 098 816C507F 15G12V87E18V5X10+GP  
 (ADN257) NR.701.0405 098 816C507F 15G12V87E18V5X10+GP



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND= 109.0 INCHES  
 (A)MACH = .16  
 PAGE 242



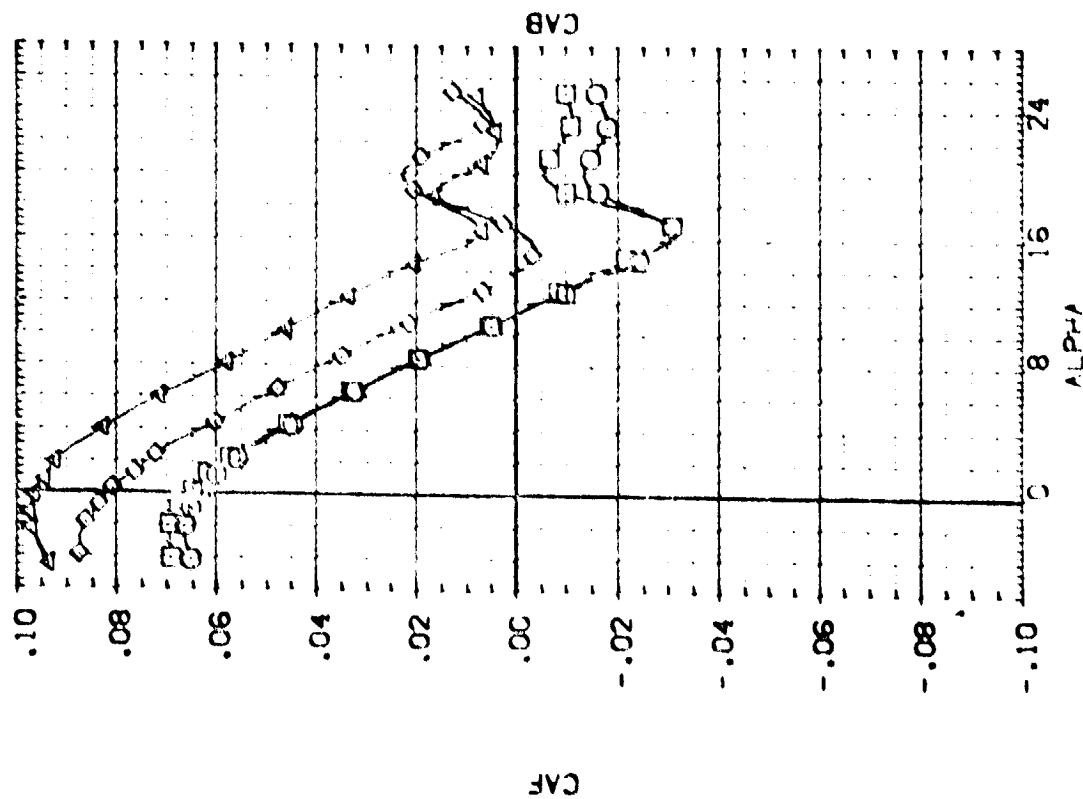
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVL	LIP	REFERENCE INFORMATION
[ADG254]	NR-701.0405 QRB 816C507F 175G12V87E 18V5X10-GP	109.000	.000	.000	4.000	SREF 4.4118 SO-FT.
[ADG255]	NR-701.0405 QRB 816C507F 175G12V87E 18V5X10-GP	109.000	.000	.000	4.000	LREF 19.2338 IN-ES
[ADG256]	NR-701.0405 QRB 816C507F 175G12V87E 18V5X10-GP	109.000	5.000	.000	4.000	BREF 37.9349 IN-ES
[ADG257]	NR-701.0405 QRB 816C507F 175G12V87E 18V5X10-GP	109.000	15.000	.000	4.000	YREF 43.5574 IN-ES
			-20.000			ZREF .0000 IN-ES
						SCALE 16.2000 IN-ES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND= 109.0 INCHES

(A)MACH = .16

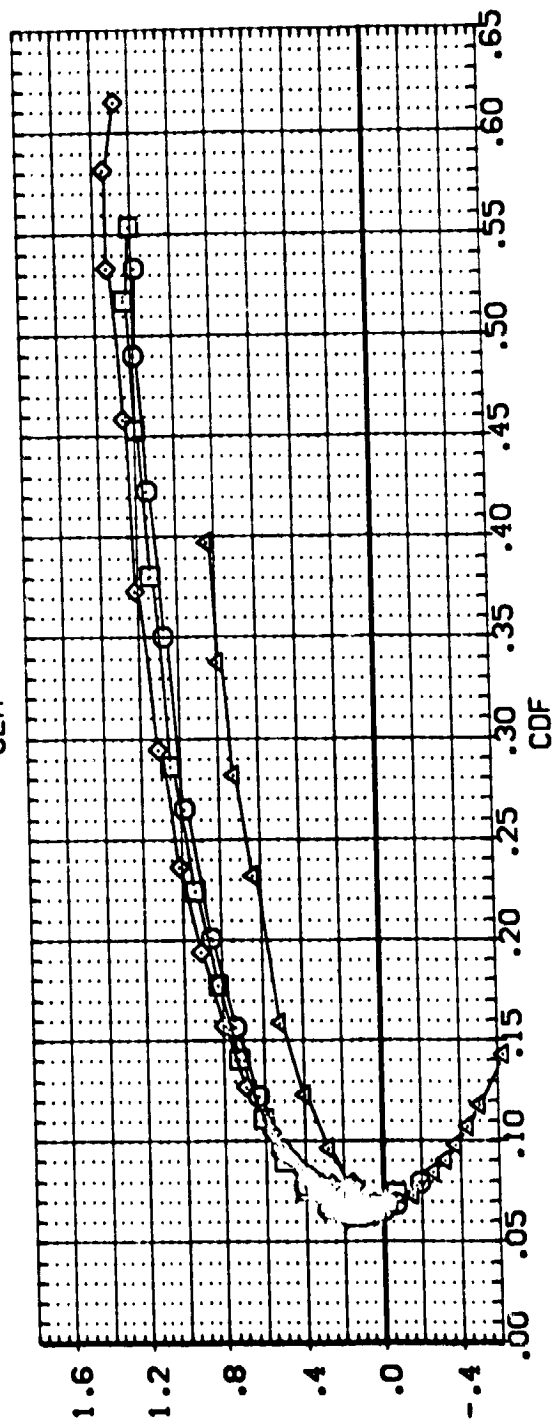
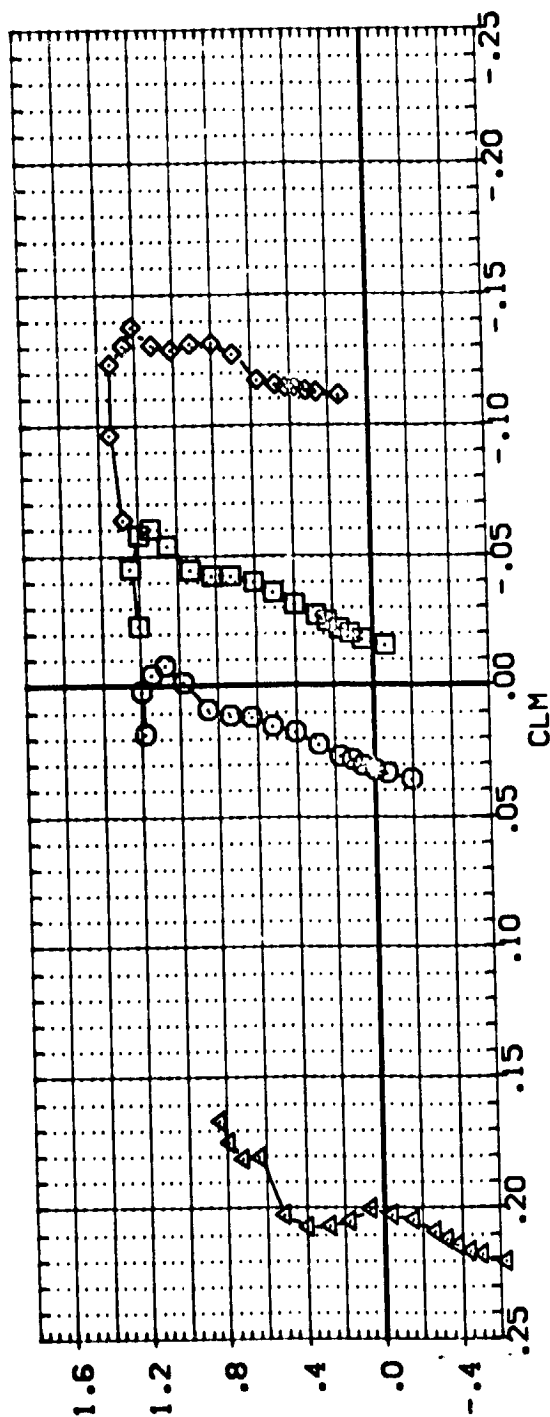
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-PDS	ELEVON	WACA	LIP	REFERENCE INFORMATION
AD-054	NP 70 0405 088 818507 438 2667 1845 0-08	128.000	.000	.000	4.000	50.47
AD-055	NP 70 0405 088 818507 438 2667 1845 0-08	128.000	.000	.000	4.000	19.2838
AD-056	NP 70 0405 088 818507 438 2667 1845 0-08	128.000	.000	.000	4.000	77.5048
AD-057	NP 70 0405 088 818507 438 2667 1845 0-08	128.000	.000	.000	4.000	43.5874
						16.2000
						SCALE
						SCALE



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND= 109.0 INCHES  
 CACHACH = .16



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACAL	LIP	REFERENCE INFORMATION
(ADK54)	NR.701.0405 DRB 816C507F 135612687V5X1D+GP	109.000	.000	.000	4.000	SREF 4.4119 SQ.FT. INCHES
(ADK55)	NR.701.0405 DRB 816C507F 135612687E18V5X1D+GP	109.000	5.000	.000	4.000	LREF 19.2959 INCHES
(ADK56)	NR.701.0405 DRB 816C507F 135612687E18V5X1D+GP	109.000	15.000	.000	4.000	BREF 37.5349 INCHES
(ADK57)	NR.701.0405 DRB 816C507F 135612687E18V5X1D+GP	109.000	-20.000	.000	4.000	YREF 43.5974 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND= 109.0 INCHES

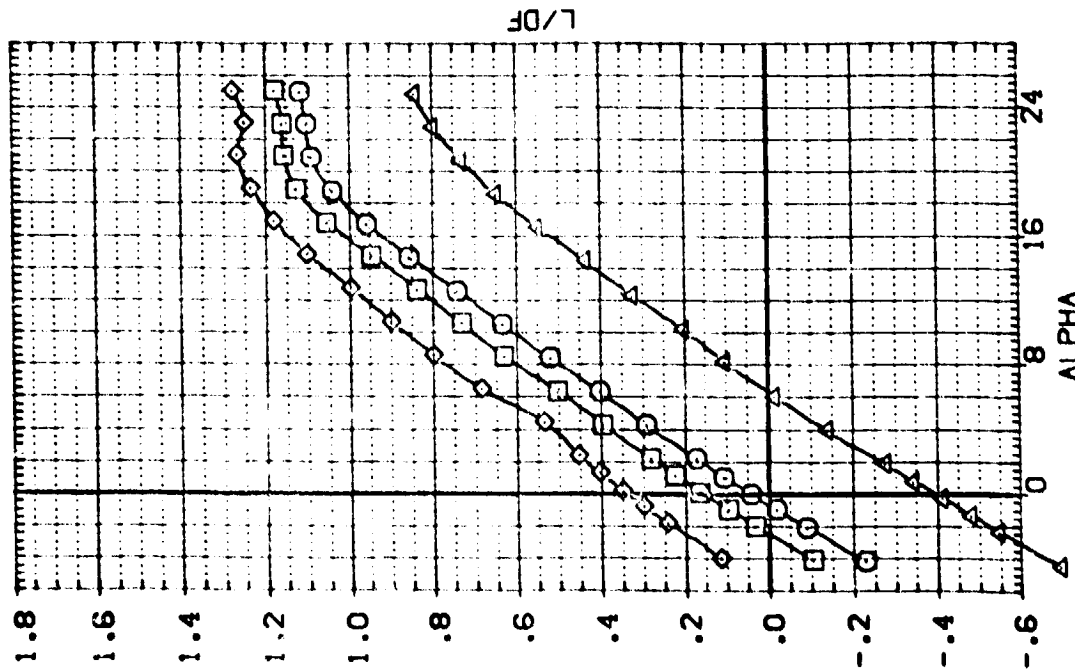
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AD-020) NR.701.0405 DBB B16C507F J7012467E18VSX10+GP

(AD-021) NR.701.0405 DBB B16C507F J7012467E18VSX10+GP

(AD-022) NR.701.0405 DBB B16C507F J7012467E18VSX10+GP

(AD-023) NR.701.0405 DBB B16C507F J7012467E18VSX10+GP



GP-POS ELEVON MACUL LIP REFERENCE INFORMATION

109.000 0.000 .000 4.000 SREF 4.4119 SQ.FT.

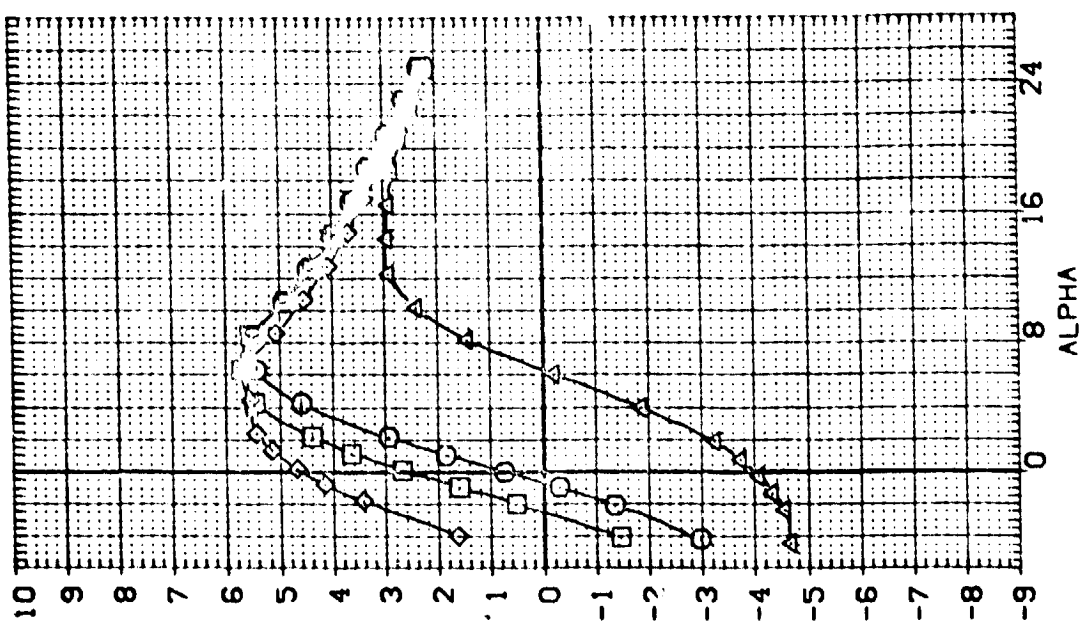
109.000 5.000 .000 4.000 LREF 19.2598 INCHES

109.000 15.000 .000 4.000 BREF 37.9349 INCHES

109.000 -20.000 .000 4.000 YREF 43.5974 INCHES

109.000 0.000 .000 16.2000 ZREF INCHES

SCALE .0405



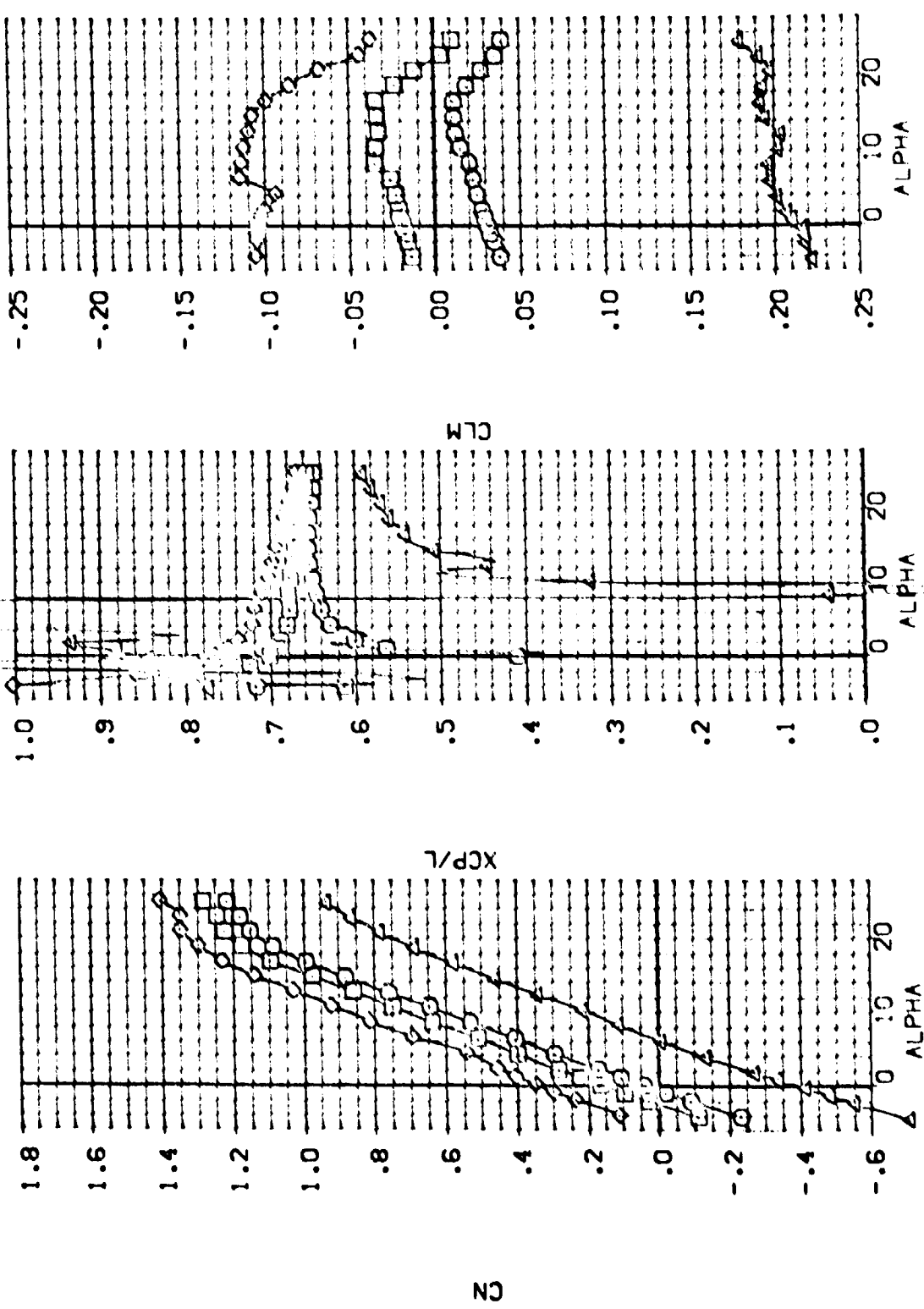
ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH. HGT. ABOVE GRND= 109.0 INCHES

(A)MACH = .16





DATA SET SYMBOL	COORDINATION OF DESCRIPTION	GRANDS	ELEVON	MACH	LIP	REFERENCE INFORMATION
AD-000	10.701 04.05 098 81.655076 176	09.000	0.000	.000	4.000	SPR 4.4119 50.07 O-ES
AD-001	10.701 04.05 098 81.655076 176	09.000	5.000	.000	4.000	UPR 19.2228 37.5219 O-ES
AD-002	10.701 04.05 098 81.655076 176	09.000	15.000	.000	4.000	BRP 43.2271 0.000 O-ES
AD-003	10.701 04.05 098 81.655076 176	09.000	-20.000	.000	4.000	MRP 16.2000 0.000 O-ES
						SCALE 16.2000 0.000 O-ES



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH. HGT. ABOVE GRND= 109.0 INCHES

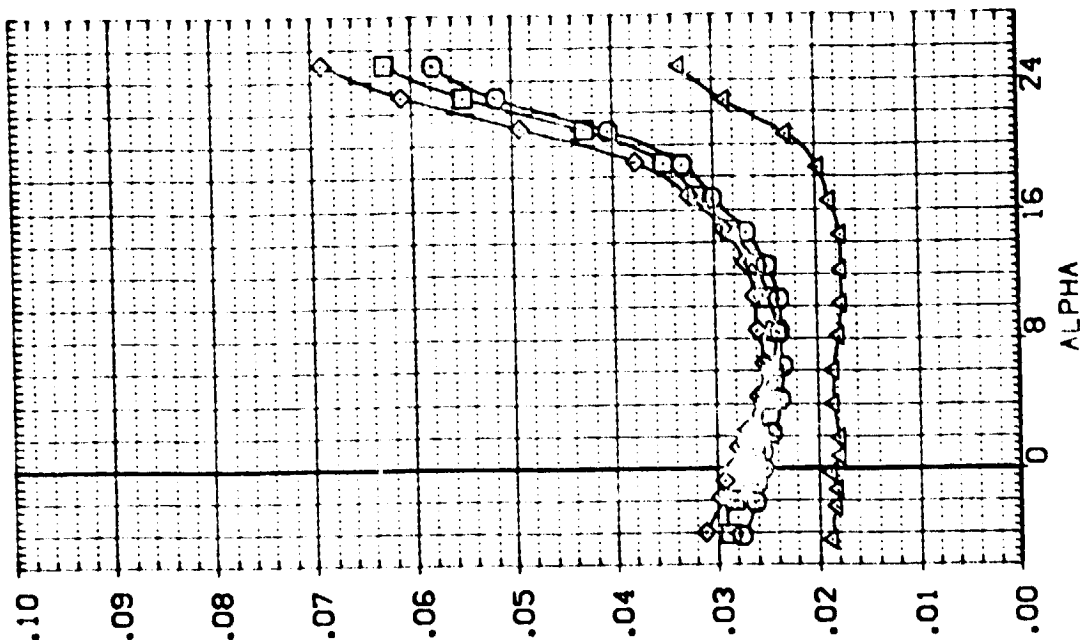
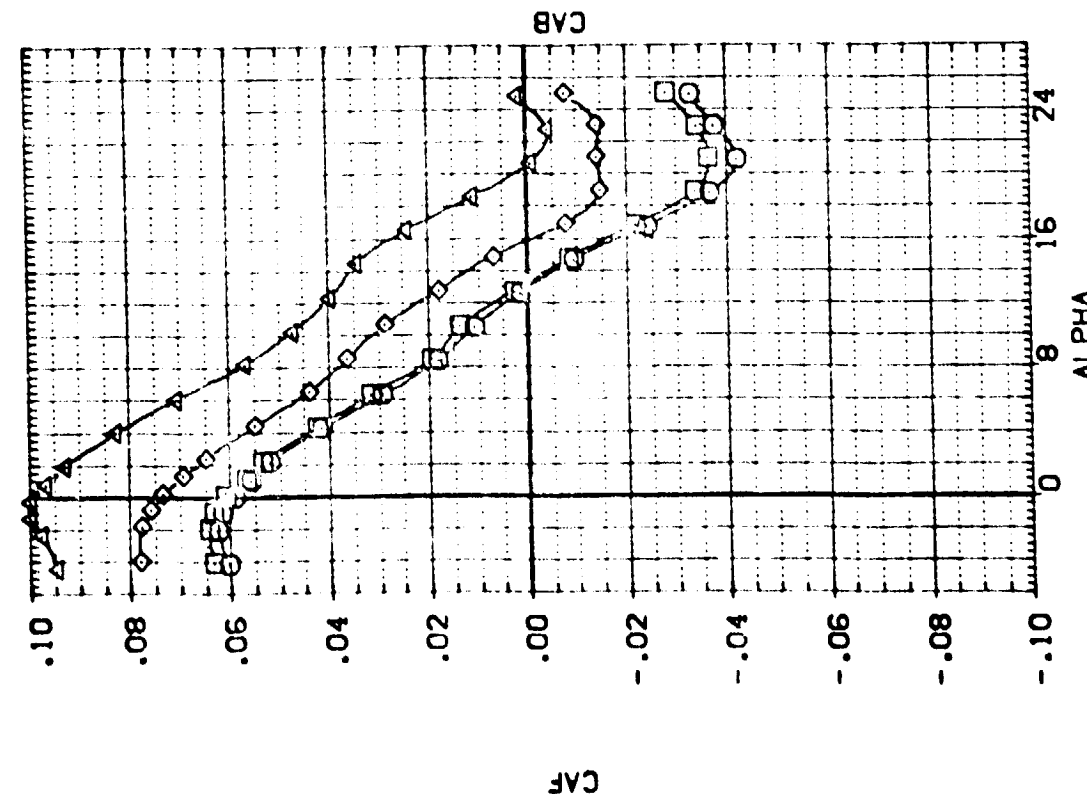
(M)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AD-020)	MP. 701.0405	088	816C507F	17612487E	8V5X10-0P
(AD-021)	MP. 701.0405	088	816C507F	17612487E	8V5X10-0P
(AD-022)	MP. 701.0405	088	816C507F	17612487E	8V5X10-0P
(AD-023)	MP. 701.0405	088	816C507F	17612487E	8V5X10-0P

GP-POS ELEVON MACUL LIP REFERENCE INFORMATION

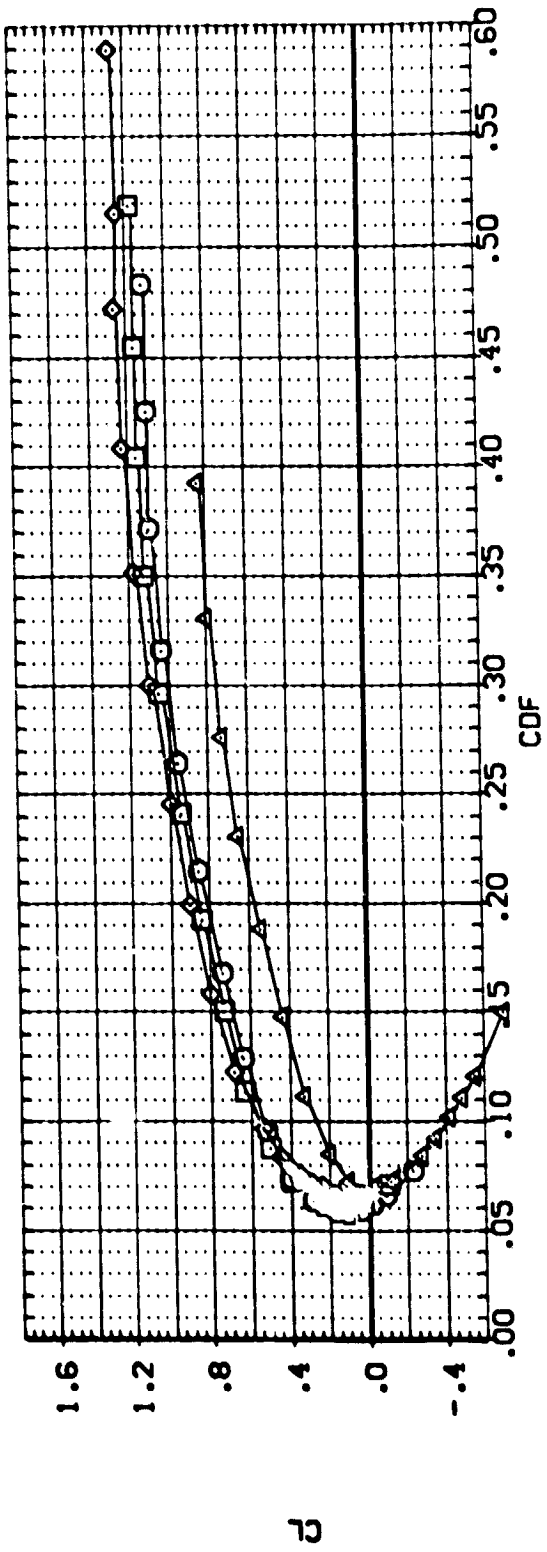
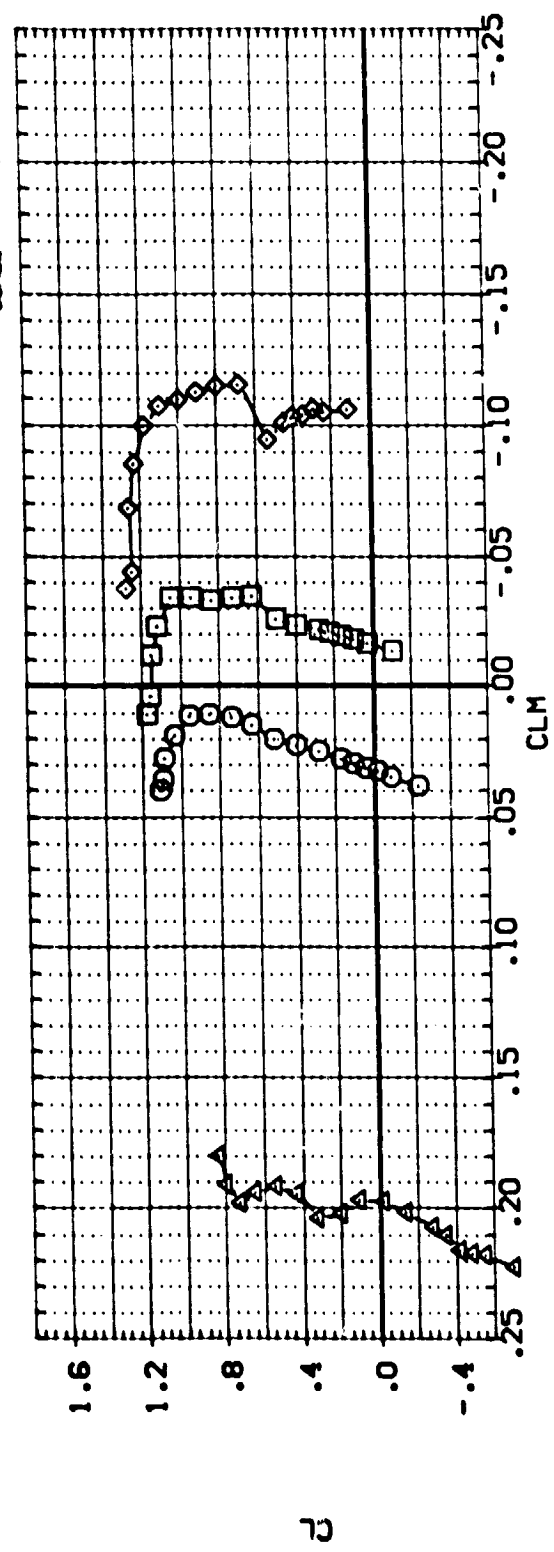
109.000	.000	.000	1.000	SRF	4.4119	50. FT.
109.000	.000	.000	1.000	LRP	19.2599	NO-ES
109.000	5.000	.000	1.000	BRP	37.5949	NO-ES
109.000	15.000	.000	1.000	TRP	43.5974	NO-ES
109.000	-20.000	.000	1.000	TRP	.0000	NO-ES
				TRP	16.2000	NO-ES
				SCALE	.0405	SCALE



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH. HGT. ABOVE GRND= 109.0 INCHES  
 (A)MACH = .16  
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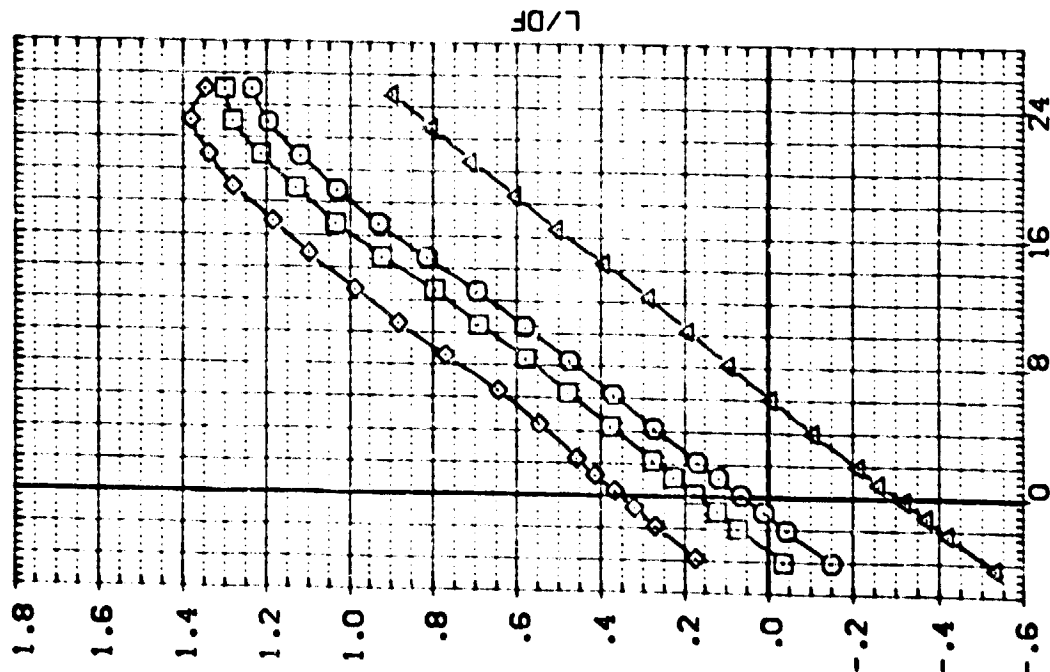
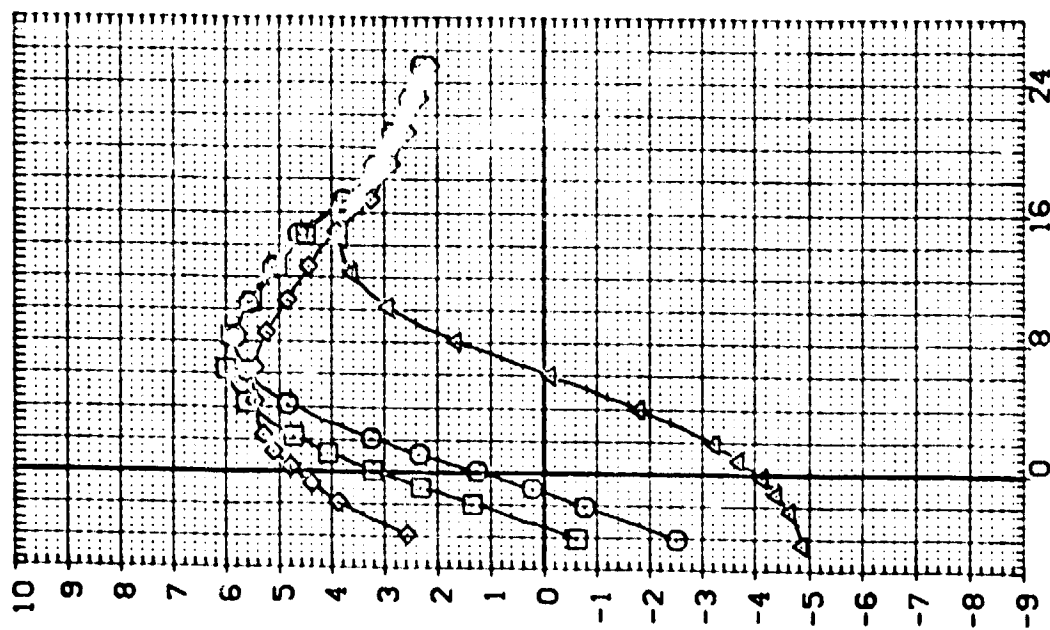


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	Q-POS	ELEVON	NACAL	LIP	REFERENCE INFORMATION
(AD-G20)	NR.701.0405 DRB B16CS07F J701.2V67E18V5X10+G	109.000	.000	.000	4.000	SREF 4.4119 SQ.FT.
(AD-G21)	NR.701.0405 DRB B16CS07F J701.2V67E18V5X10+G	109.000	5.000	.000	4.000	UREF 19.2959 INCHES
(AD-G22)	NR.701.0405 DRB B16CS07F J701.2V67E18V5X10+G	109.000	15.000	.000	4.000	BREF 37.9349 INCHES
(AD-G23)	NR.701.0405 DRB B16CS07F J701.2V67E18V5X10+G	109.000	-20.000	.000	4.000	XREF 43.5974 INCHES
						YREF 16.2000 INCHES
						ZREF 16.2000 INCHES
						SCALE .0405



GP-POS	ELEVON	NACA	LIP	REFERENCE INFORMATION
7.780	.000	.000	4.000	SREF 4.4113 50.FT. INOES
7.780	5.000	.000	4.000	LREF 19.2358 INOES
7.780	15.000	.000	4.000	BREF 37.5349 INOES
7.780	-20.000	.000	4.000	XREF 43.5974 INOES
				YREF .0000 INOES
				ZREF 16.2000 INOES
				SCALE .0405

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(FDG65)	MR.701.0405 DB8 B16CS07F IG12487E18VSX3+GP
(FDG67)	MR.701.0405 DB8 B16CS07F IG12487E18VSX3+GP
(FDG68)	MR.701.0405 DB8 B16CS07F IG12487E18VSX3+GP
(FDG69)	MR.701.0405 DB8 B16CS07F IG12487E18VSX3+GP

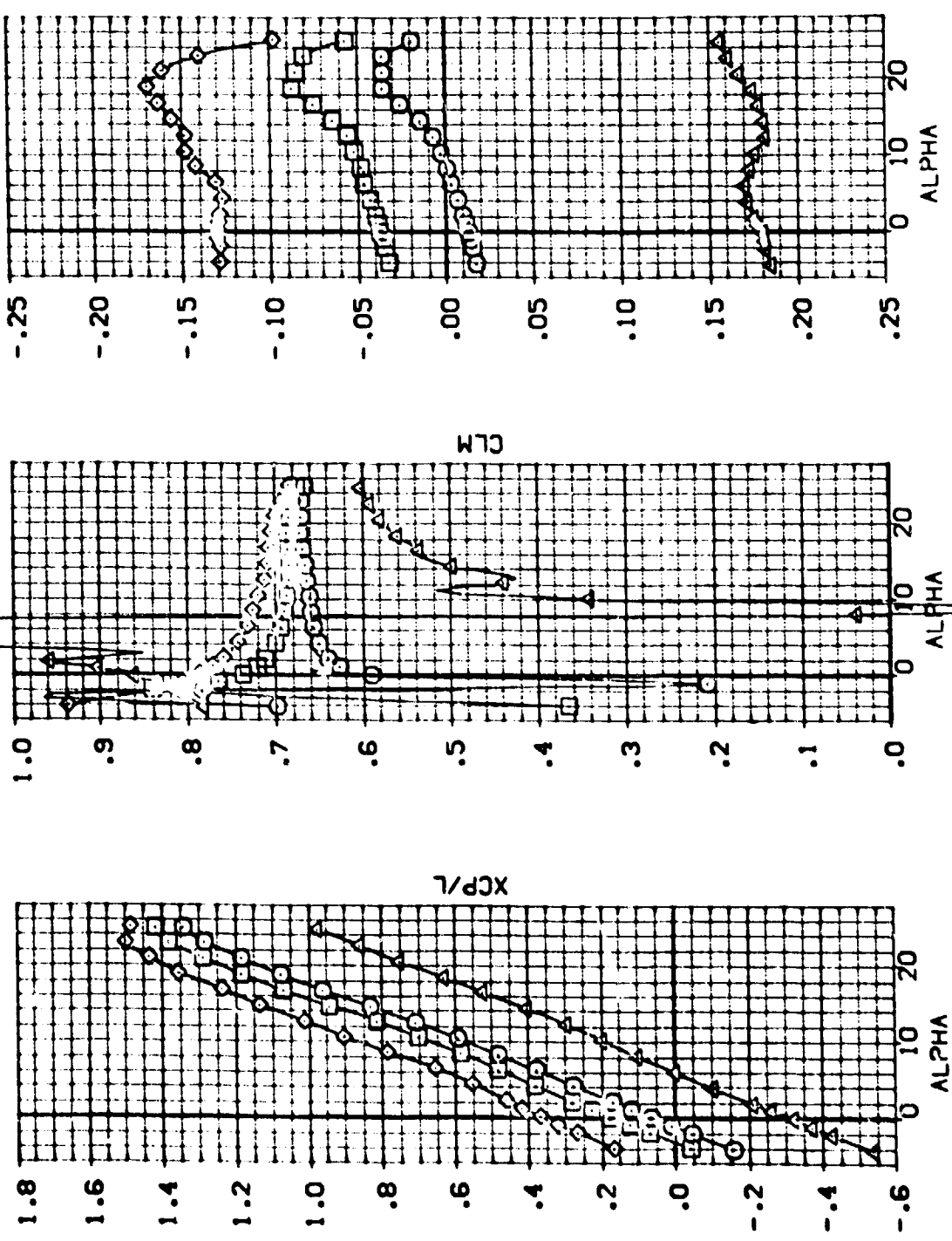


ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 7.78 INCHES

(A)MACH = .16



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	MACUL	LIP	REFERENCE INFORMATION
(FD-065)	NR.701.0405 058 816C507F 1G1 2V87E 18V5X3+GP	7.780	.000	.000	4.000	SREF 4.4119 50.000
(FD-067)	NR.701.0405 058 816C507F 1G1 2V87E 18V5X3+GP	7.780	.000	.000	4.000	LREF 15.2959 10.000
(FD-066)	NR.701.0405 058 816C507F 1G1 2V87E 18V5X3+GP	7.780	.000	.000	4.000	BREF 37.5049 10.000
(FD-068)	NR.701.0405 058 816C507F 1G1 2V87E 18V5X3+GP	7.780	.000	.000	4.000	YREF 43.5574 10.000
						ZREF 16.2000 10.000
						SCALE .0405 50.000



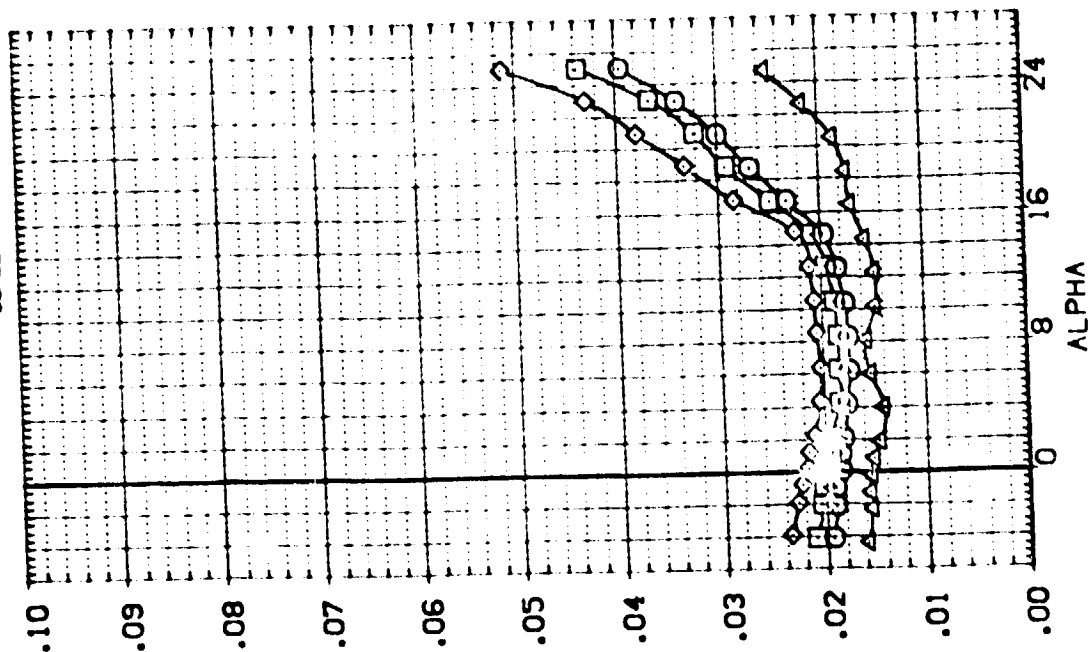
ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 7.78 INCHES

(A)MACH = .16

(FD-265)  
(FD-267)  
(FD-265)  
(FD-268)

NR 701 0405 098 81 6C507F 61 2487E 18 539+0  
NR 701 0405 093 81 6C507F 61 2487E 18 539+0  
NR 701 0405 098 81 6C507F 61 2487E 18 539+0  
NR 701 0405 098 81 6C507F 61 2487E 18 539+0  
NR 701 0405 098 81 6C507F 61 2487E 18 539+0

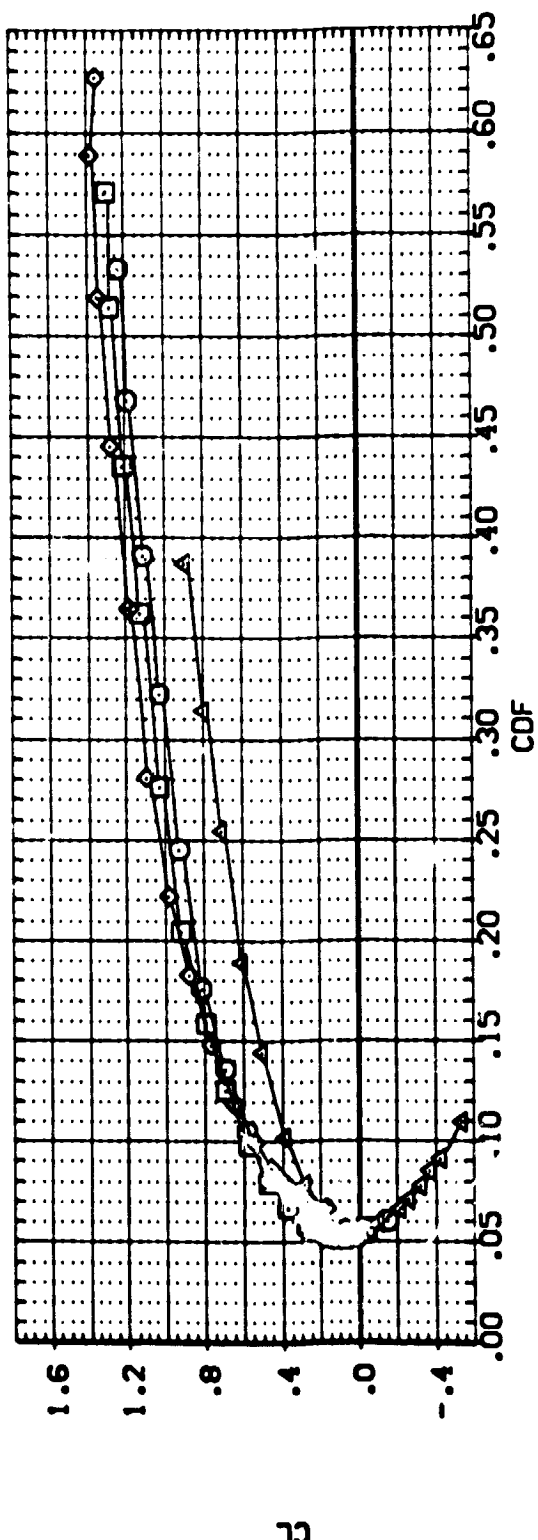
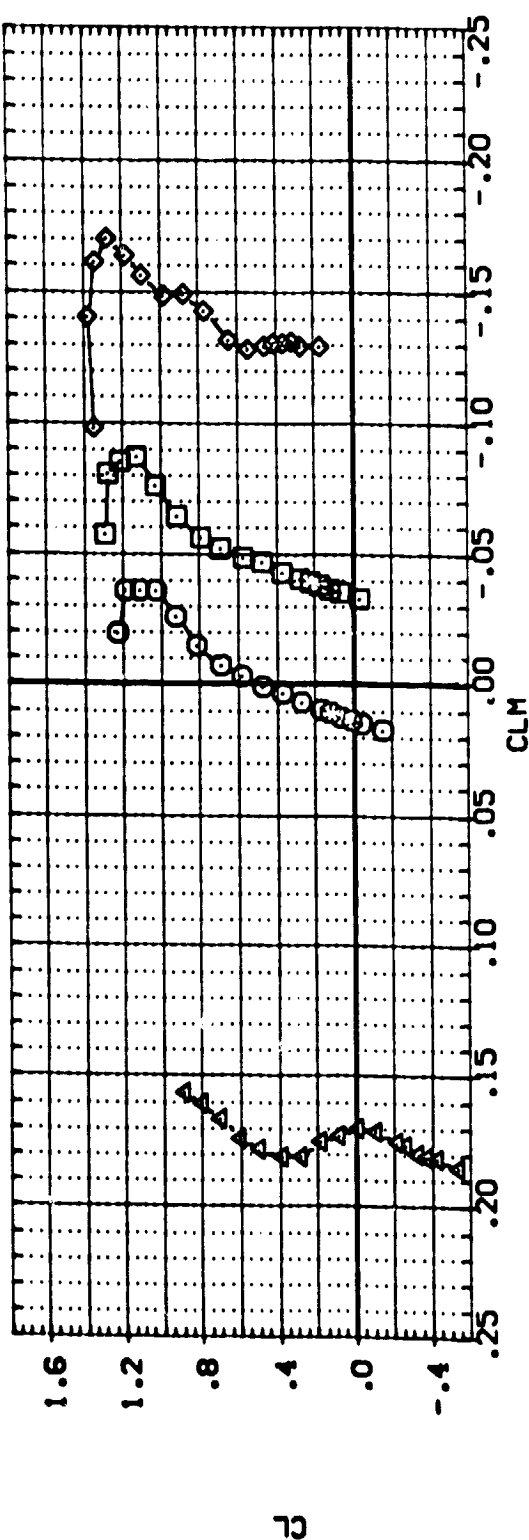
OP-ADS	ELEVON	NACVL	LIP	REFERENCE INFORMATION	50. FT.
7.780	.000	.000	9REF	4.4119	IN-OES
7.780	.000	.000	LABF	19.2359	IN-OES
7.780	5.000	.000	8REF	37.9349	IN-OES
7.780	15.000	.000	XREF	43.5874	IN-OES
7.780	-20.000	.000	YREF	10000	IN-OES
			ZREF	16.2000	IN-OES
			SCALE	.0005	SCALE



ALPHA  
EFFECTIVENESS. ABES OFF. HEIGHT ABOVE GROUND= 7.78 INCHES

$$\{A\}MACH = .16$$

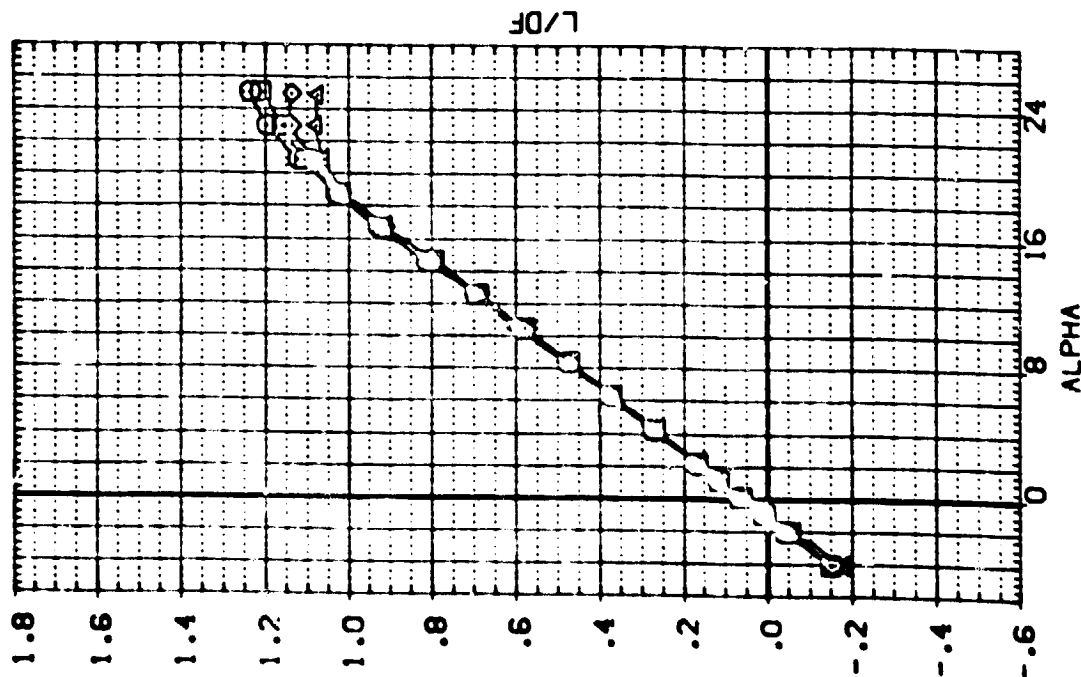
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
(FD-665)	MR.701.0405 DBB B16C507F IG12V87V503+GP	7.780	.000	.000	4.000	SREF 4.4119 SQ.FT.
(FD-667)	MR.701.0405 DBB B16C507F IG12V87E18V503+GP	7.780	.000	.000	4.000	LREF 19.2959 INCHES
(FD-666)	MR.701.0405 DBB B16C507F IG12V87E18V503+GP	7.780	5.000	.000	4.000	BREF 37.9349 INCHES
(FD-668)	MR.701.0405 DBB B16C507F IG12V87E18V503+GP	7.780	-20.000	.000	4.000	XREF 43.5974 INCHES
						YREF 16.2000 INCHES
						SCALE .0405



ELEVON EFFECTIVENESS, ABES OFF, HEIGHT ABOVE GROUND= 7.78 INCHES

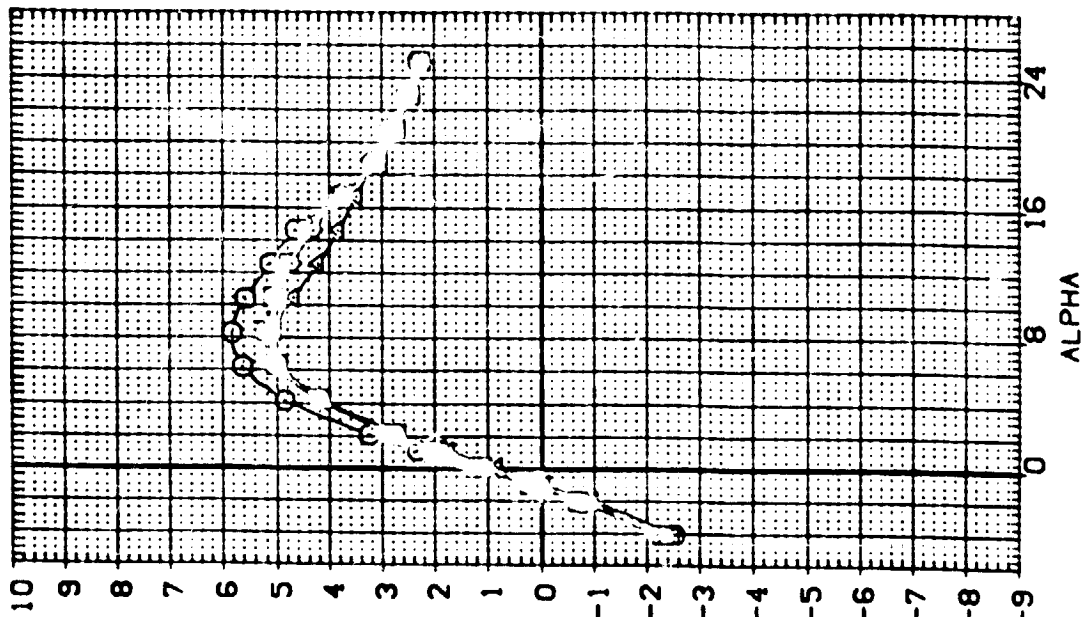
(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
[FDG65]		NR.701.0405	088 816507F 1012467V3X3-0P
[ADG74]		NR.701.0405	088 816507F 17312467V3X10-0P
[ADG75]		NR.701.0405	088 816507F 17312467V3X10-0P
[ADG76]		NR.701.0405	088 816507F 17312467V3X10-0P



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OP-POS	B-FLAP	NACVL	LIP	REFERENCE INFORMATION
7.780	-18.000	.000	4.000	SREF 4.4119 SQ.FT.
7.780	-18.000	.000	4.000	LREF 19.2999 INCHES
7.780	-18.000	.000	4.000	BREF 37.9349 INCHES
7.780	-18.000	.000	4.000	XREF 43.5374 INCHES
				YREF .0000 INCHES
				ZREF 16.2000 INCHES
				SCALE .0405



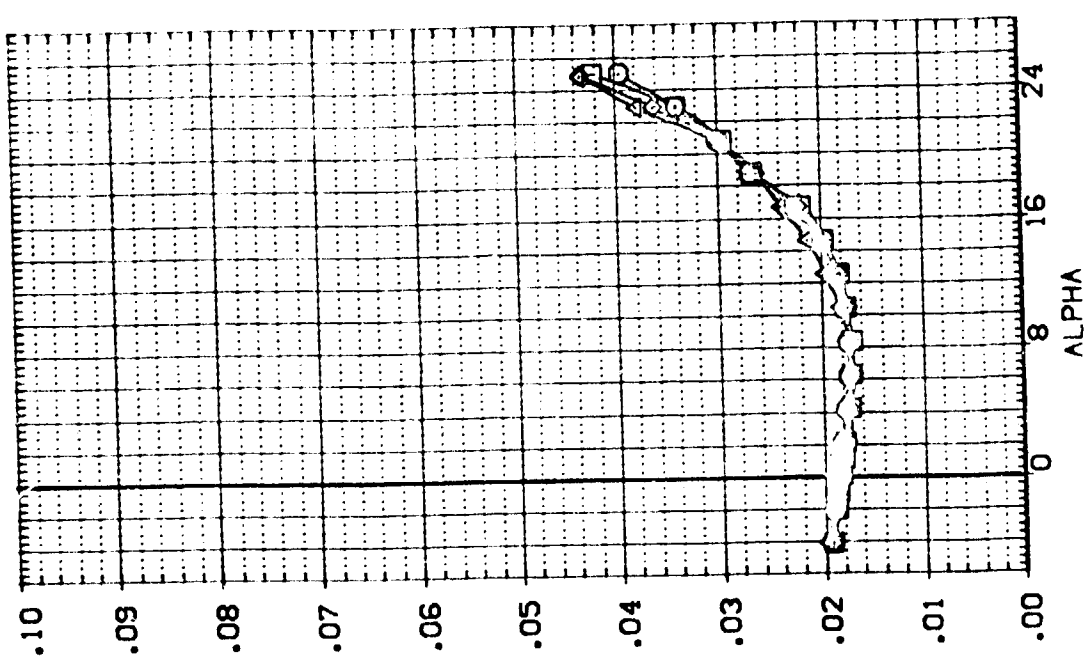
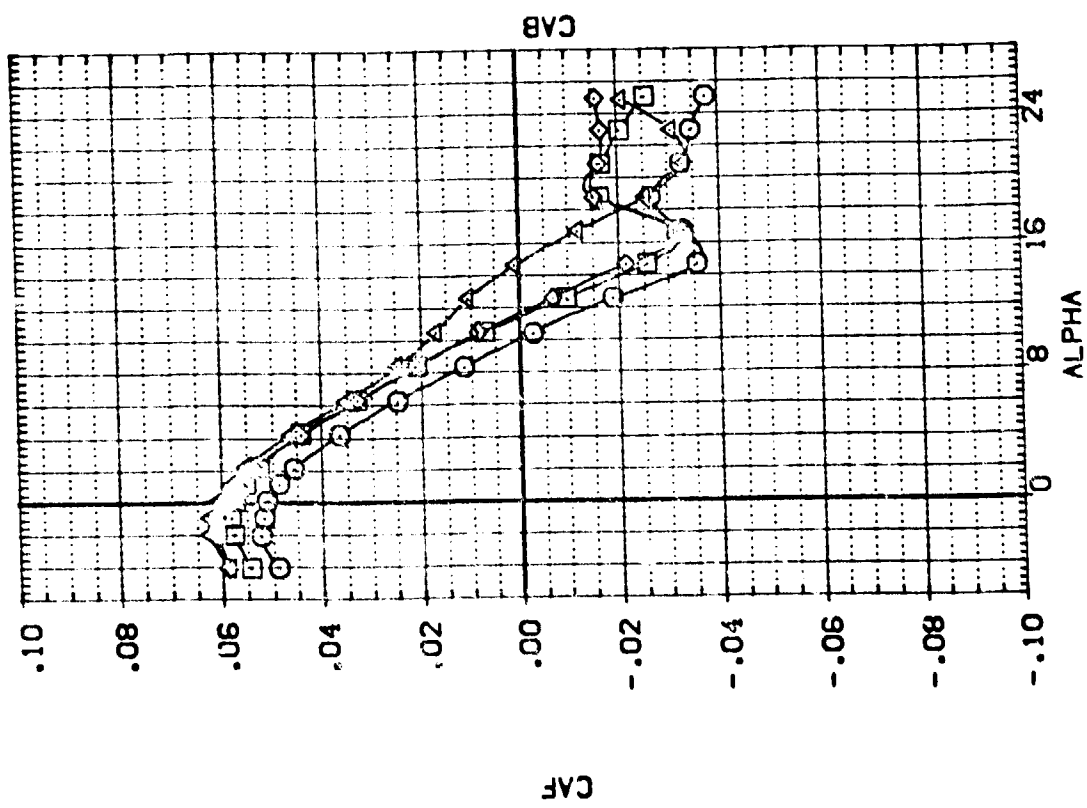
EFFECT OF ABES. HEIGHT ABOVE GROUND = 7.78 INCHES  
 (A)MACH = .16





DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (FD-065)    (R-701.0405 068 B16C507F1012487V5X10-06)  
 (AD-074)    (R-701.0405 068 B16C507F143612487V5X10-06)  
 (AD-075)    (R-701.0405 068 B16C507F143612487V5X10-06)  
 (AD-076)    (R-701.0405 068 B16C507F143612487V5X10-06)

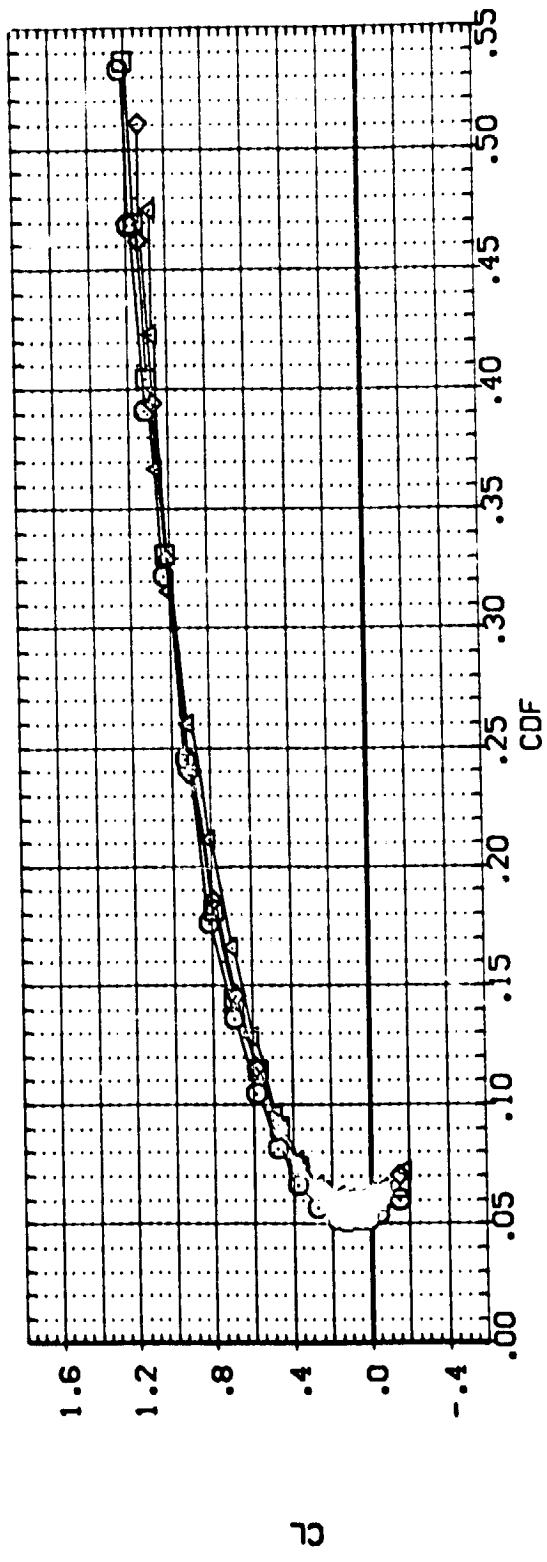
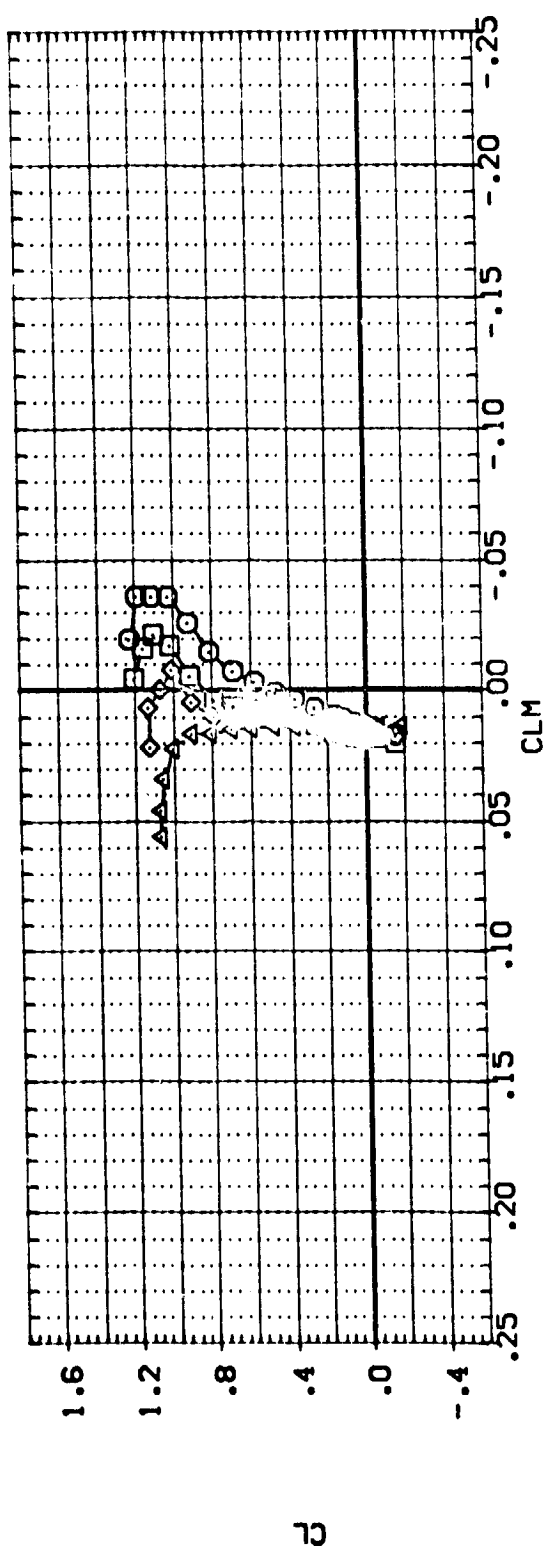
GP-RCS    B-FLAP    MAXVAL    LIP    REFERENCE INFORMATION    SQ.FT.  
 7.780    -18.000    .000    4.000    SREF    4.4119    50.00  
 7.780    -18.000    .000    4.000    LREF    19.2369    10.00  
 7.780    -18.000    .000    4.000    ZREF    37.9349    10.00  
 7.780    -18.000    .000    4.000    XREF    43.5874    10.00  
 7.780    -18.000    .000    4.000    YREF    16.2000    10.00  
 7.780    -18.000    .000    4.000    ZREF    16.2000    10.00  
 7.780    -18.000    .000    4.000    XREF    16.2000    10.00  
 7.780    -18.000    .000    4.000    YREF    16.2000    10.00  
 7.780    -18.000    .000    4.000    ZREF    16.2000    10.00  
 7.780    -18.000    .000    4.000    XREF    16.2000    10.00  
 7.780    -18.000    .000    4.000    YREF    16.2000    10.00  
 7.780    -18.000    .000    4.000    ZREF    16.2000    10.00



EFFECT OF ABES. HEIGHT ABOVE GROUND = 7.78 INCHES

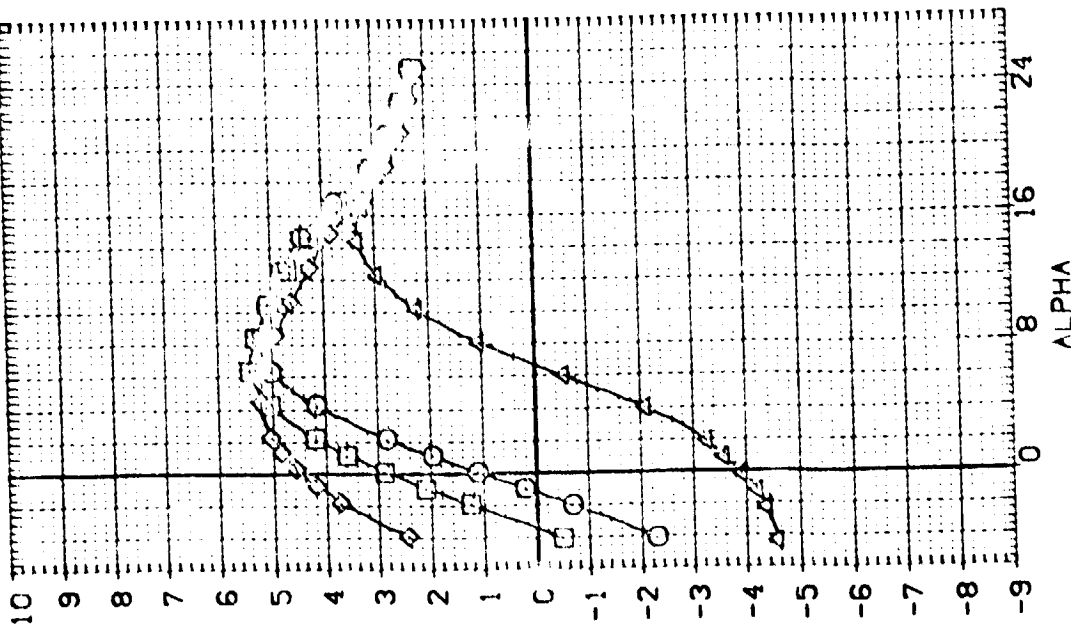
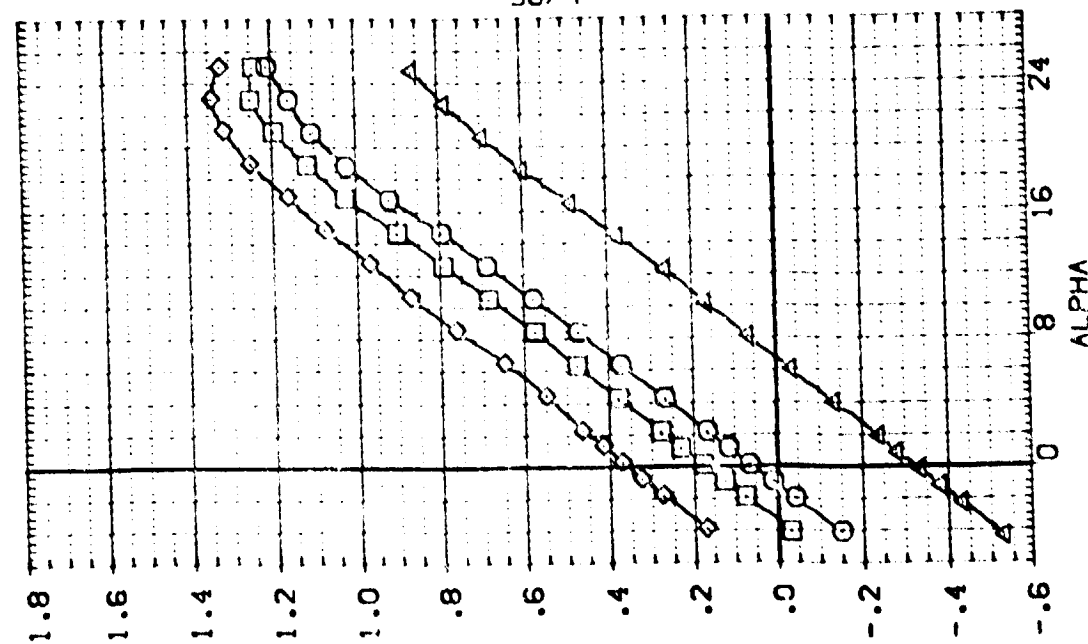
(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	B-FLAP	NACVL	LIP	REFERENCE INFORMATION
(AD-65)	NR.701.0405 DB8 B16C507F1G12V87V5X10+GP	7.780	-18.000	.000	4.000	SREF 4.4119 SQ.FT.
(AD-274)	NR.701.0405 DB8 B16C507F1J3612V87V5X10+GP	7.780	-18.000	.000	4.000	UREF 19.2888 IN-ES
(AD-275)	NR.701.0405 DB8 B16C507F1J5612V87V5X10+GP	7.780	-18.000	.000	4.000	BREF 37.9349 IN-ES
(AD-629)	NR.701.0405 DB8 B16C507F1J7612V87V5X10+GP	7.780	-18.000	.000	4.000	XREF 43.5374 IN-ES
						YREF .0000 IN-ES
						ZREF 16.2000 IN-ES
						SCALE .0405



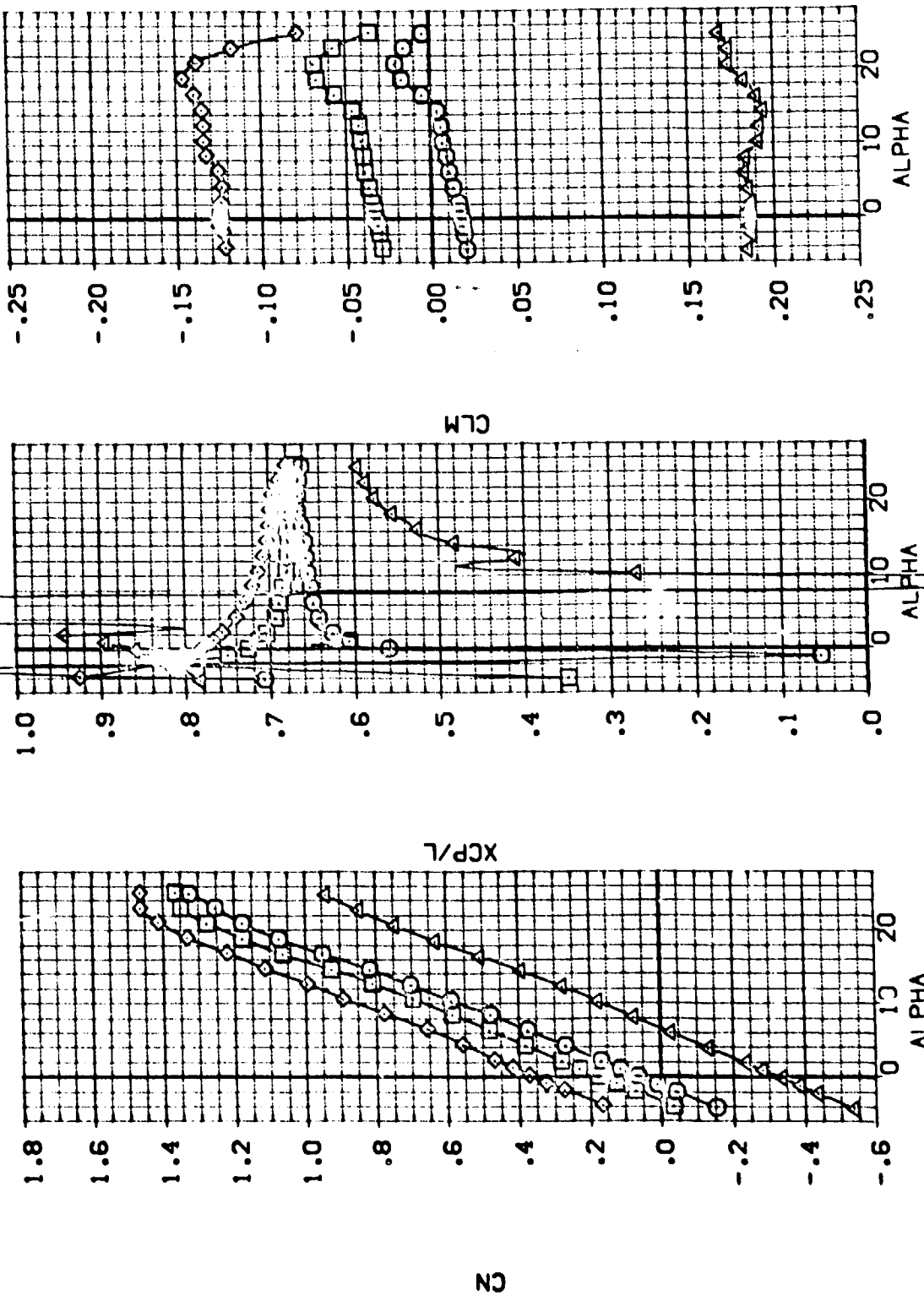
EFFECT OF ABES, HEIGHT ABOVE GROUND = 7.78 INCHES

(A)MACH = .16

[illegible]

ALPHA  
ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 7.78 INCHES  
CAMPACH = .16 PAGE 258

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	OP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
(ADN274)	NR.701.0405 088 816C507E 43012487A5X10+GP	7.780	.000	.000	4.000	SREF 4.4119 50.FT. IN-O-ES
(ADN273)	NR.701.0405 088 816C507E 43012487E18V5X10+GP	7.780	5.000	.000	4.000	UREF 19.2998 IN-O-ES
(ADN272)	NR.701.0405 088 816C507E 43012487E18V5X10+GP	7.780	15.000	.000	4.000	BRUF 27.5343 IN-O-ES
(ADN271)	NR.701.0405 088 816C507E 43012487E18V5X10+GP	7.780	-20.000	.000	4.000	YPRF 43.5574 IN-O-ES
						ZPRF 16.2000 IN-O-ES
						SCALE .0405



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 7.78 INCHES

(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ADN274) NR.701.0405 0P8 816507F J3612687E16X10+GP

(ADN273) NR.701.0405 0P8 816507F J3612687E16X10+GP

(ADN272) NR.701.0405 0P9 816507F J3612687E18X10+GP

(ADN271) NR.701.0405 0 916507F J3612687E18X10+GP

GP-POS ELEVON NAC/L LIP REFERENCE INFORMATION

7.780 .000 .000 4.000 SREF 4.4119 SQ.FT.

7.780 5.000 .000 4.000 LREF 19.2999 INCHES

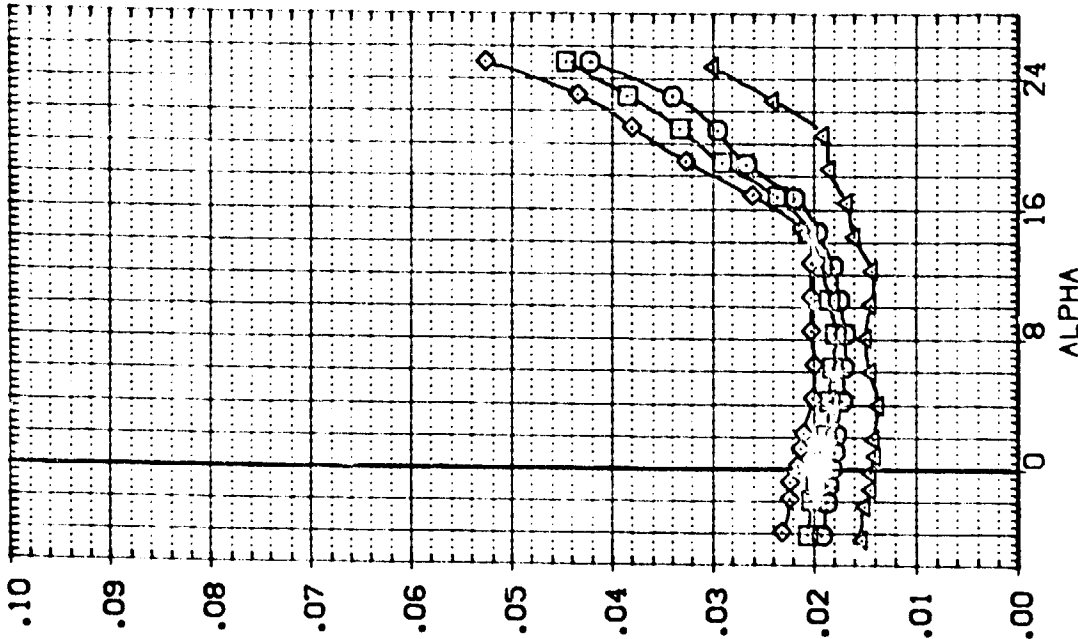
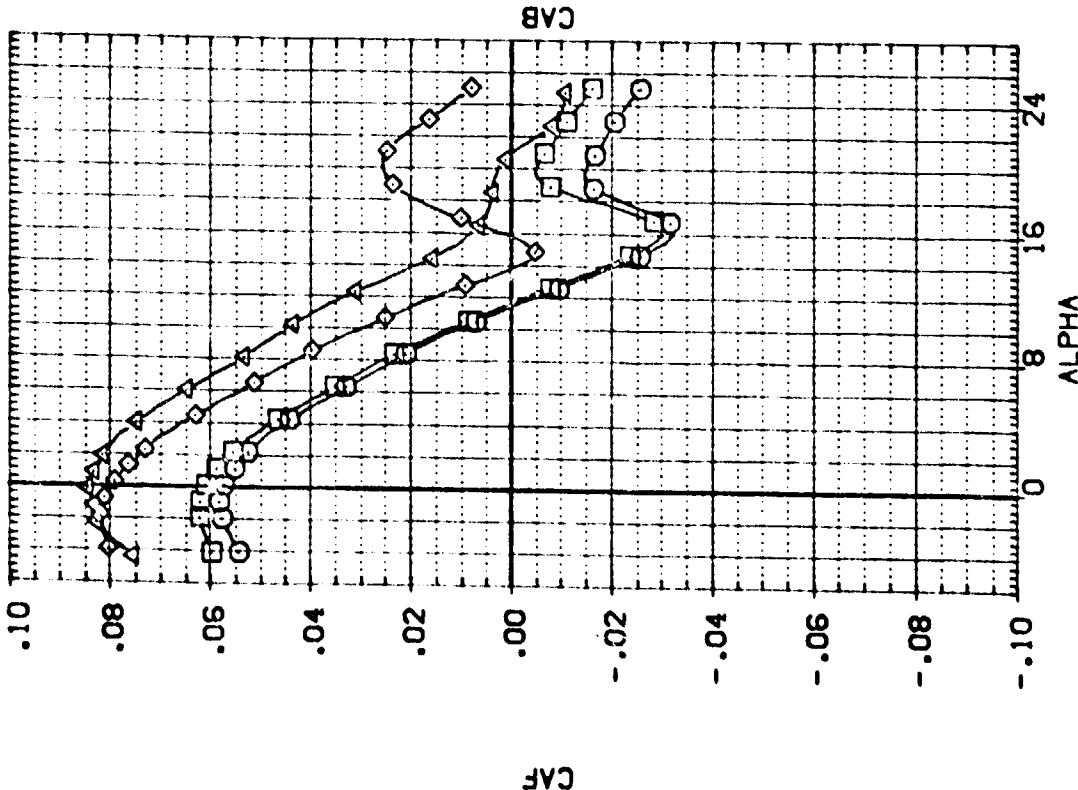
7.780 15.000 .000 4.000 BREF 37.9349 INCHES

7.780 -20.000 .000 4.000 XREF 43.5874 INCHES

YREF .000 INCHES

ZREF 16.2000 INCHES

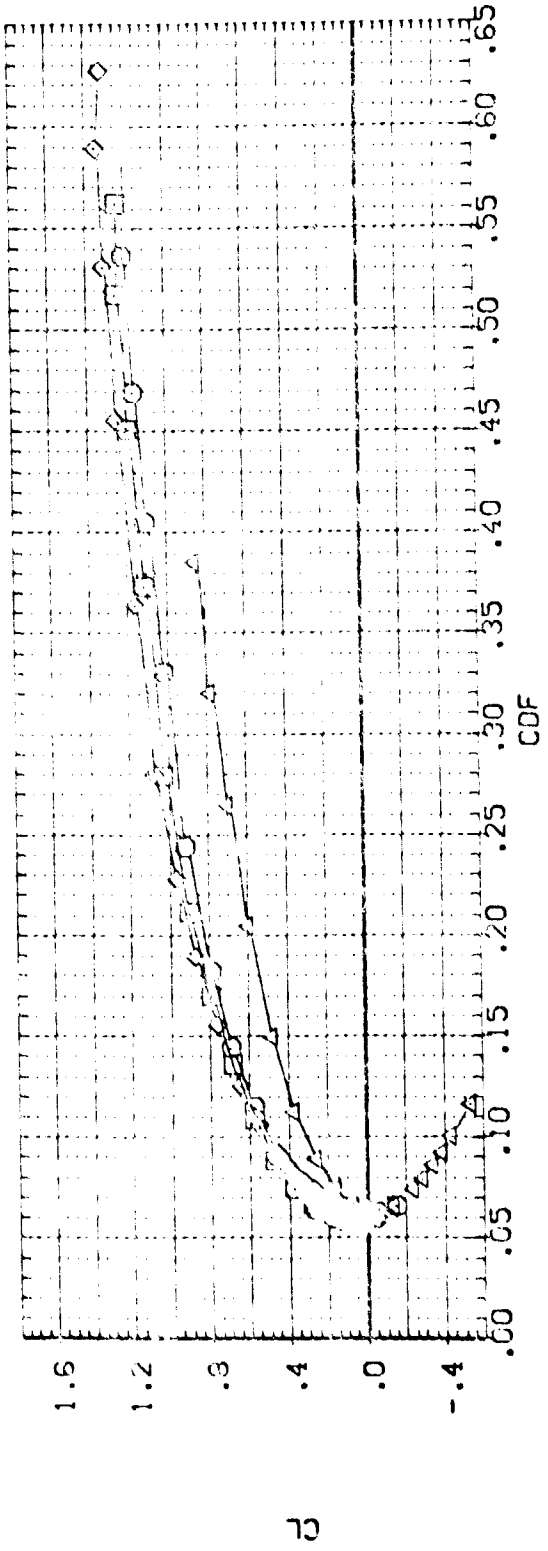
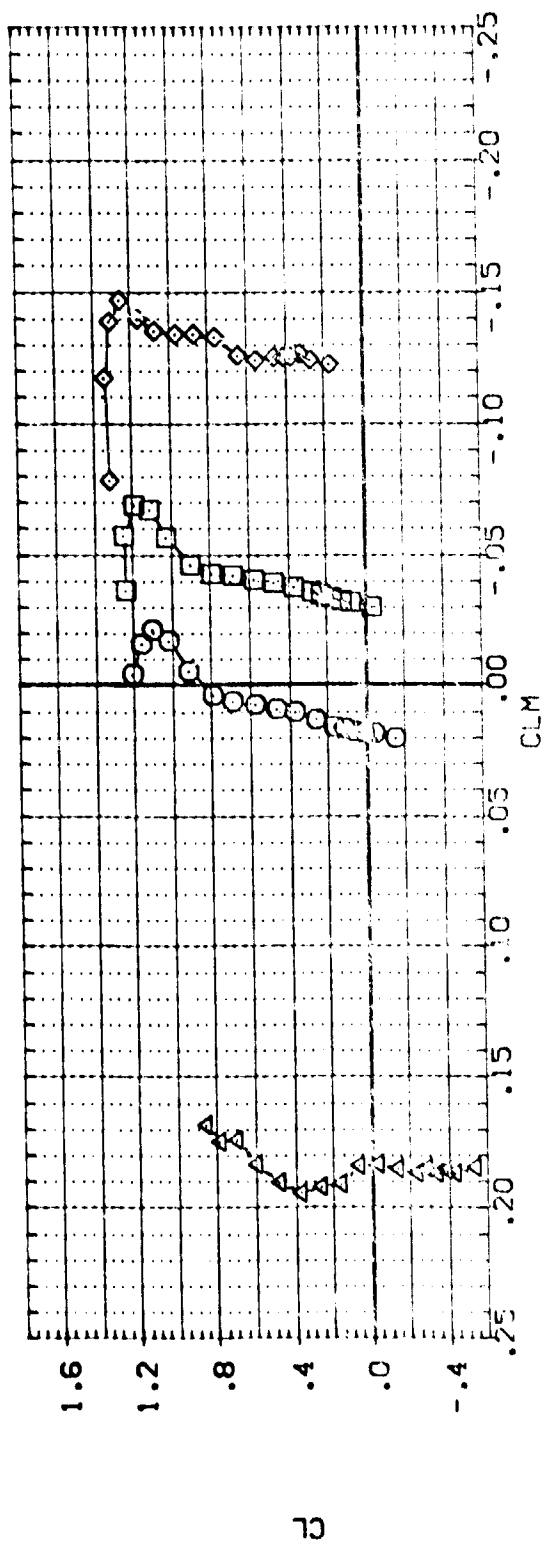
SCALE .0405 INCHES



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 7.78 INCHES

(A)MACH = .16

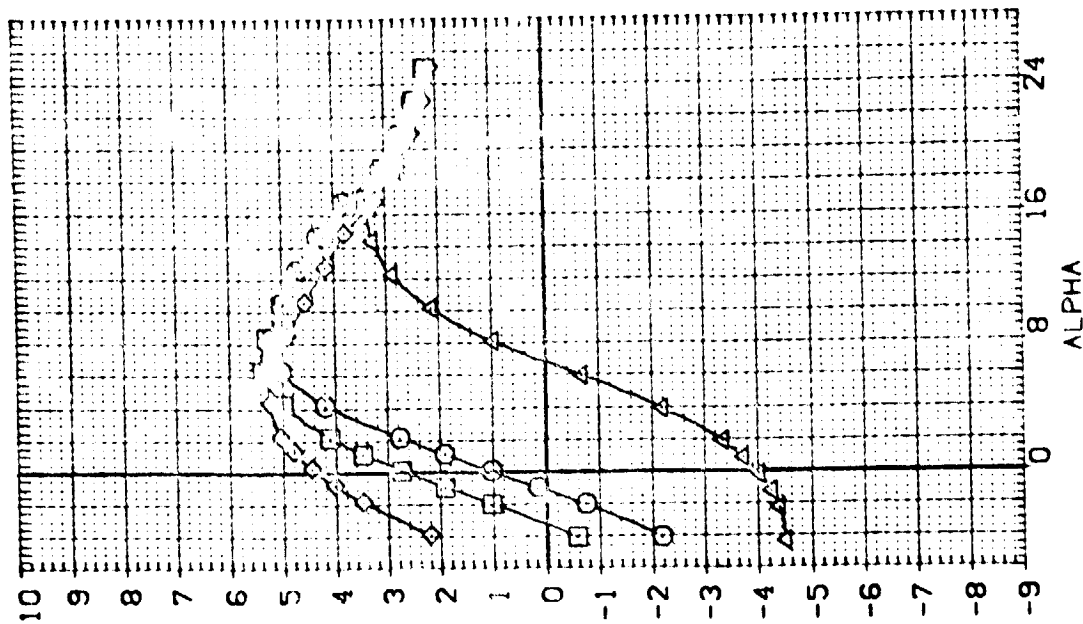
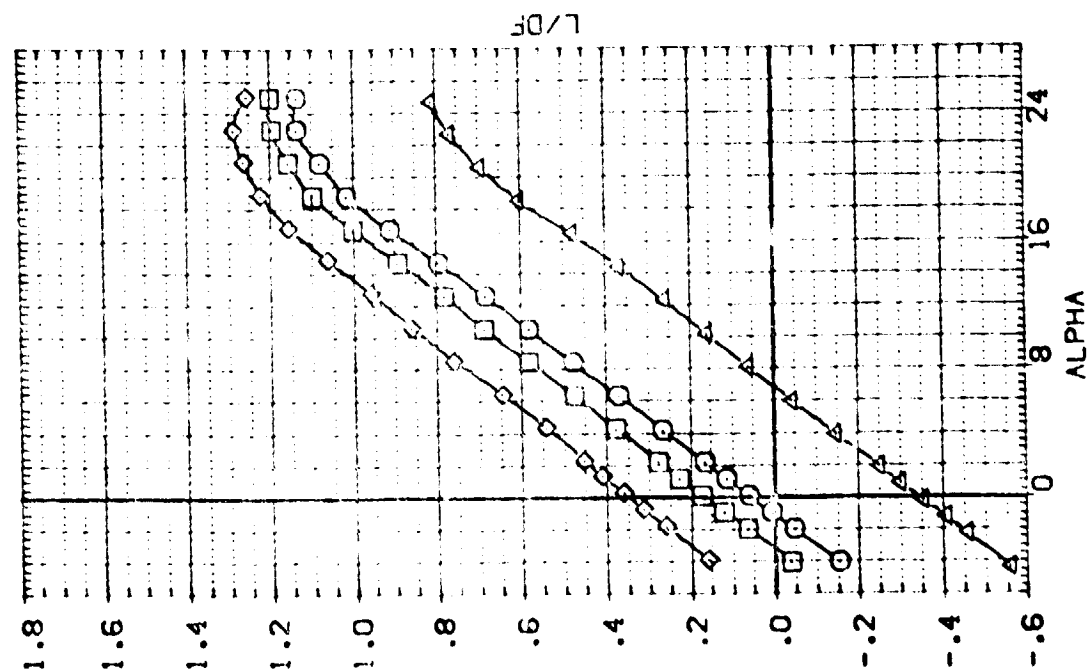
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACA/L	LIP	REFERENCE INFORMATION
[AD-0714]	18.701.0405 098 B16C507F143G12V87V5X10+GP	7.780	.000	.000	4.000	SREF 4.4119 50.FT.
[AD-0713]	18.701.0405 098 B16C507F143G12V87E18V5X10+GP	7.780	5.000	.000	4.000	UREF 19.2639 100.FT.
[AD-0712]	18.701.0405 098 B16C507F143G12V87E18V5X10+GP	7.780	15.000	.000	4.000	BREF 37.5019 100.FT.
[AD-0711]	18.701.0405 098 B16C507F143G12V87E18V5X10+GP	7.780	-20.000	.000	4.000	XREF 43.5574 100.FT.
						YREF 16.2000 100.FT.
						ZREF .0405 100.FT.
						SCALE



ELEVON EFFECT. BASELINE ABES LOCATION(4 NACELLES) HGT. ABOVE GRND= 7.78 INCHES

GP-POS	ELEVON	NACEL	LIP	REF	REFERENCE INFORMATION
7.780	.000	.000	4.000	9REF	4.4119 NO-ES
7.780	5.000	.000	4.000	1REF	19.2889 NO-ES
7.780	15.000	.000	4.000	2REF	37.9319 NO-ES
7.780	-20.000	.000	4.000	3REF	43.5974 NO-ES
				4REF	0.0000 NO-ES
				5REF	16.2000 NO-ES
				SCALE	.0405

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
[A3-275]	1P.701.2405 DB8 B16.507F 4.5012467E18V510-2P
[A3-276]	1P.701.2405 DB8 B16.507F 4.5012467E18V510-2P
[A3-277]	1P.701.2405 DB8 B16.507F 4.5012467E18V510-2P
[A3-278]	1P.701.2405 DB8 B16.507F 4.5012467E18V510-2P

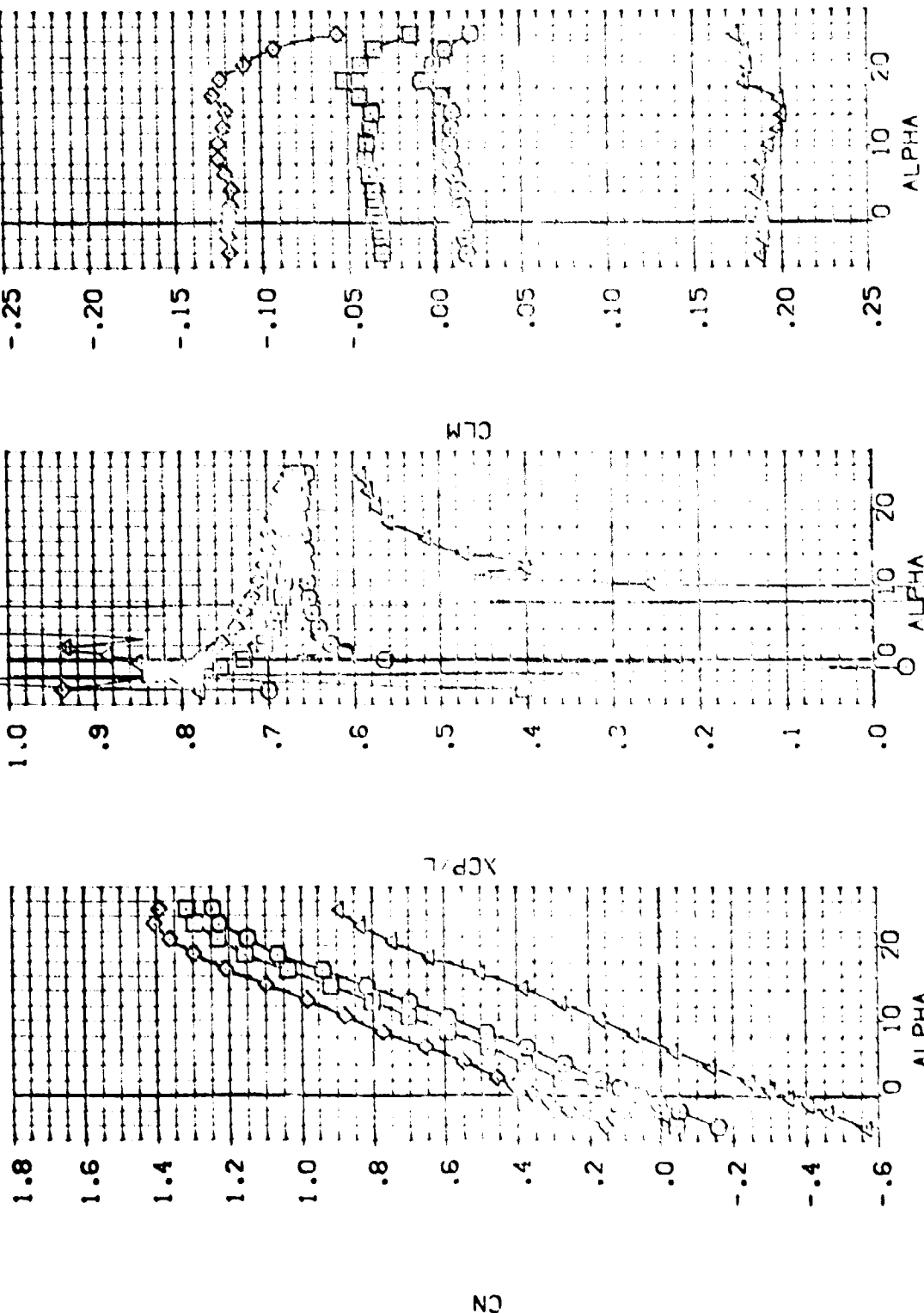


ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND= 7.78 INCHES  
 (A)MACH = .16





DATA SET SYMBOL	CSF	QUANT	DESCRIPTION	SP-POS	ELEVON	NACAL	LIP	REFERENCE INFORMATION
[AD-075]	0.701	0.005	0.008	8165507E 1456	2487E 1845X10-0P	7.780	4.000	SREF 4.4119 50.47
[AD-076]	0.701	0.005	0.008	8165507E 1456	2487E 1845X10-0P	7.780	4.000	LREF 19.2399 NO-ES
[AD-077]	0.701	0.005	0.008	8165507E 1456	2487E 1845X10-0P	7.780	4.000	BREF 37.5349 NO-ES
[AD-078]	0.701	0.005	0.008	8165507E 1456	2487E 1845X10-0P	7.780	4.000	MREF 43.5974 NO-ES
								YREF 16.2000 NO-ES
								SCALE .0405



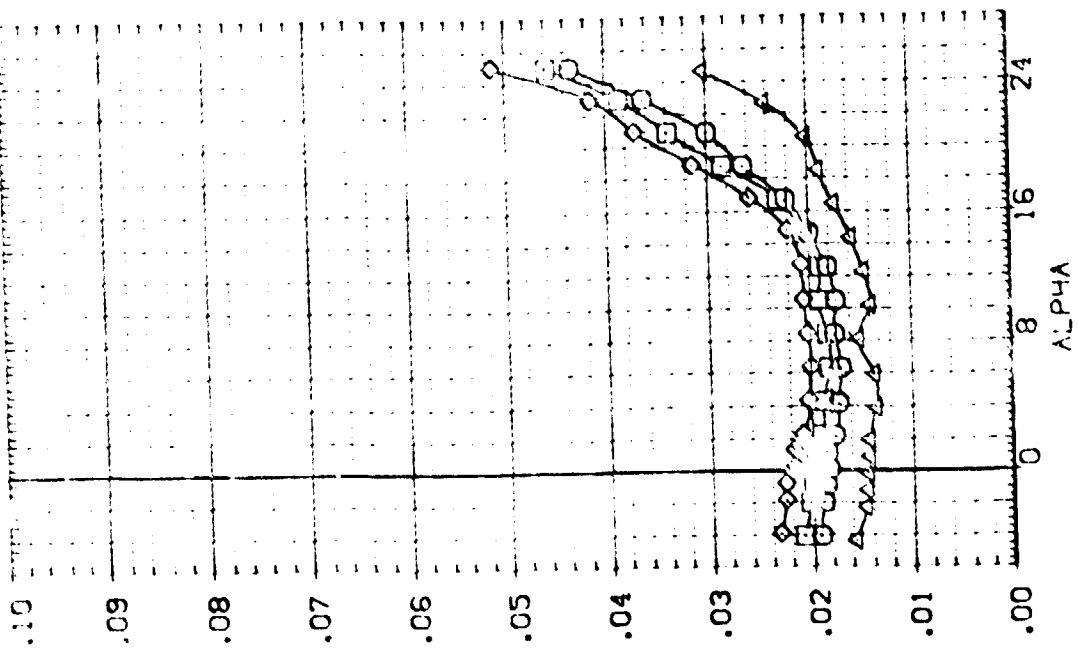
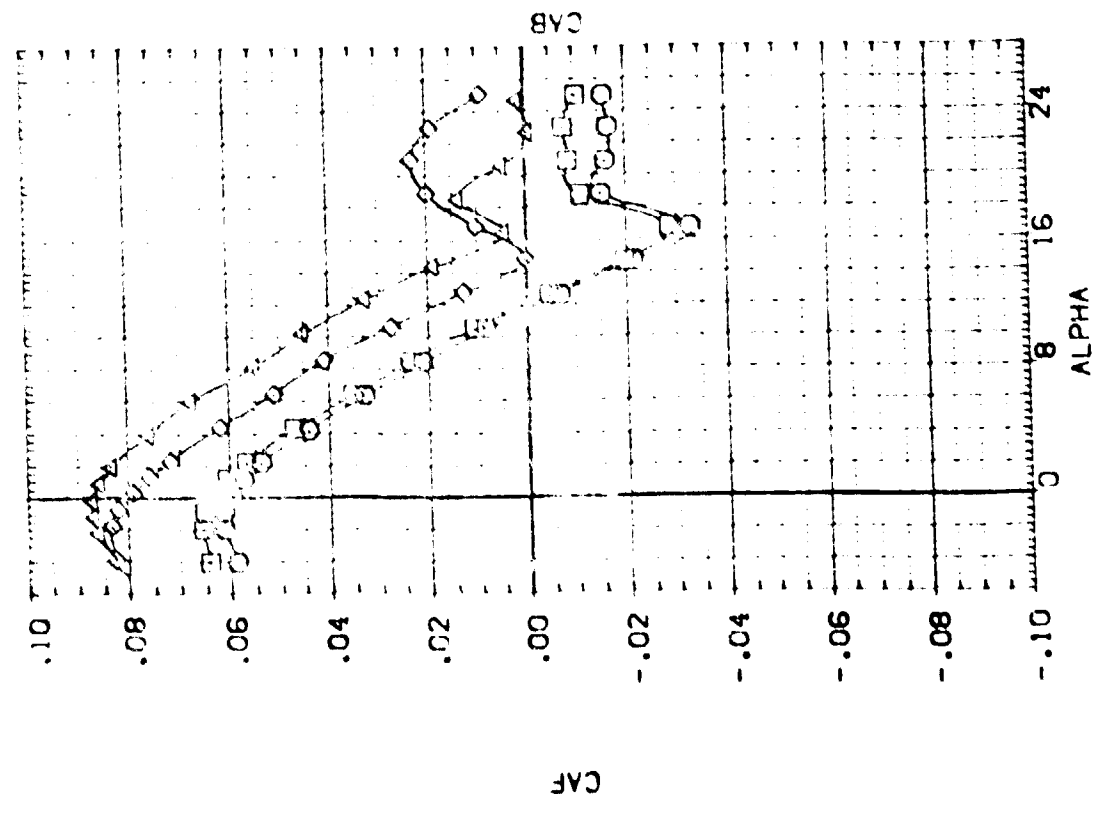
ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRND= 7.78 INCHES  
 (A)MACH = .16  
 PAGE 253

DATA SET SYMBOL CONFIGURATION DESCRIPTION

AD 075	1	10.70	1.045	0.09	8.0	50.0	2.0	1.0	0.0	0.0
AD 076	2	10.70	1.045	0.09	8.0	50.0	2.0	1.0	0.0	0.0
AD 077	3	10.70	1.045	0.09	8.0	50.0	2.0	1.0	0.0	0.0
AD 078	4	10.70	1.045	0.09	8.0	50.0	2.0	1.0	0.0	0.0

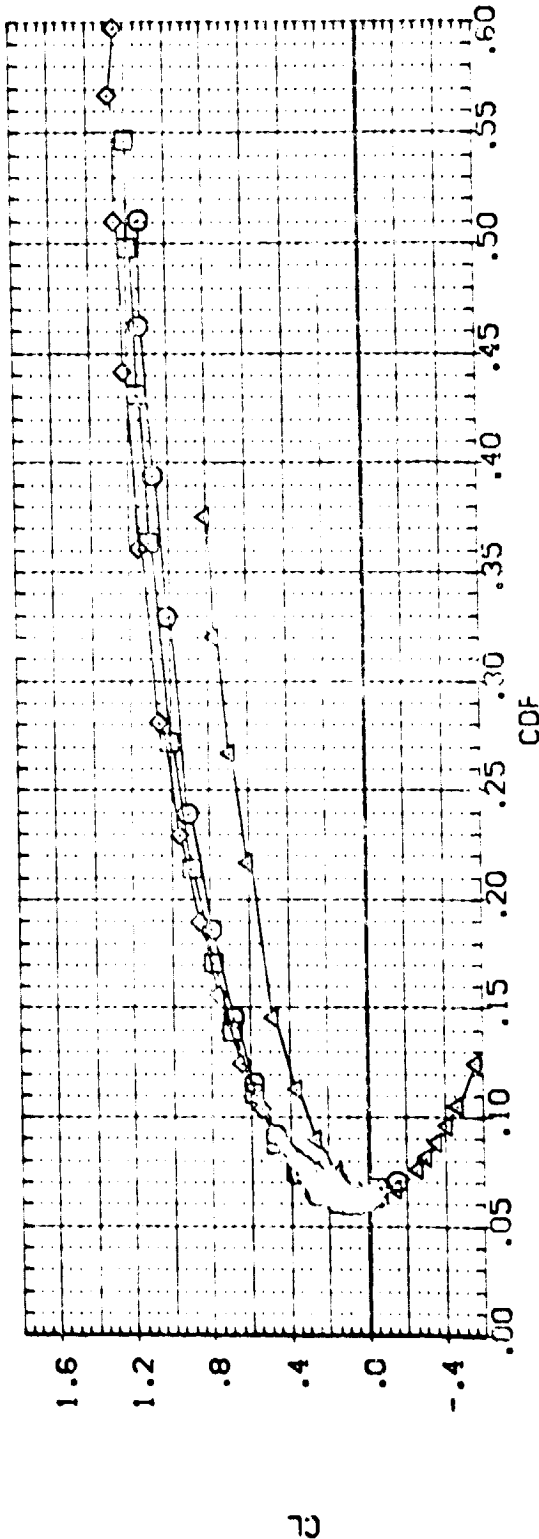
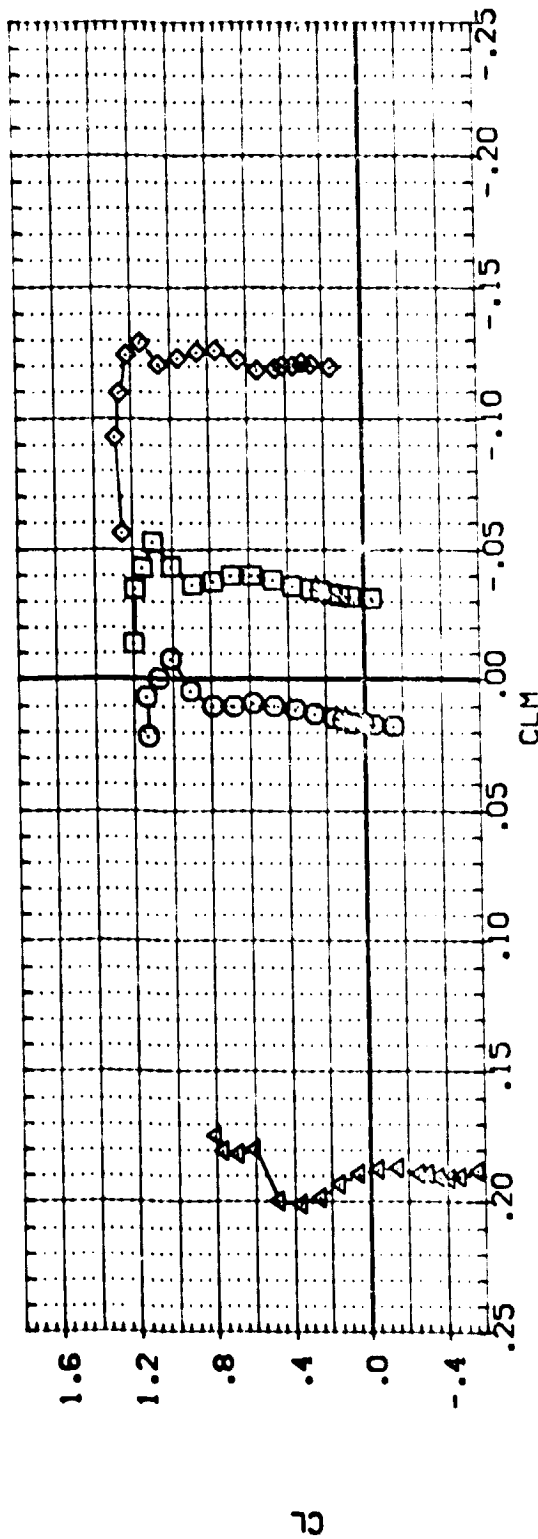
GEOMETRIC INFORMATION

GEOM	ELEV	WAVE	LIP	GEOM	SCALE
7.000	1.000	1.000	1.000	4.419	50.0
7.000	1.000	1.000	1.000	19.213	100.0
7.000	1.000	1.000	1.000	43.1674	100.0
7.000	1.000	1.000	1.000	16.200	100.0



ELEVON EFFECT. BASELINE ABES LOCATION(6 NACELLES) HGT. ABOVE GRID= 7.78 INCHES  
 (A)MACH = .16  
 PAGE 264

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NACVAL	LIP	REFERENCE INFORMATION
(AD-075)	N8.701.0405 058 B18C507F15512067E185X10+GP	7.780	.000	.000	4.000	SRF 4.4119 SQ.FT.
(AD-076)	N8.701.0405 058 B18C507F15512067E185X10+GP	7.780	5.000	.000	4.000	LRP 19.2533 INCHES
(AD-077)	N8.701.0405 058 B18C507F15512067E185X10+GP	7.780	15.000	.000	4.000	BRP 37.5519 INCHES
(AD-078)	N8.701.0405 058 B18C507F15512067E185X10+GP	7.780	-20.000	.000	4.000	YRP 43.5574 INCHES
						ZRP 16.2000 INCHES
						SCALE .0405

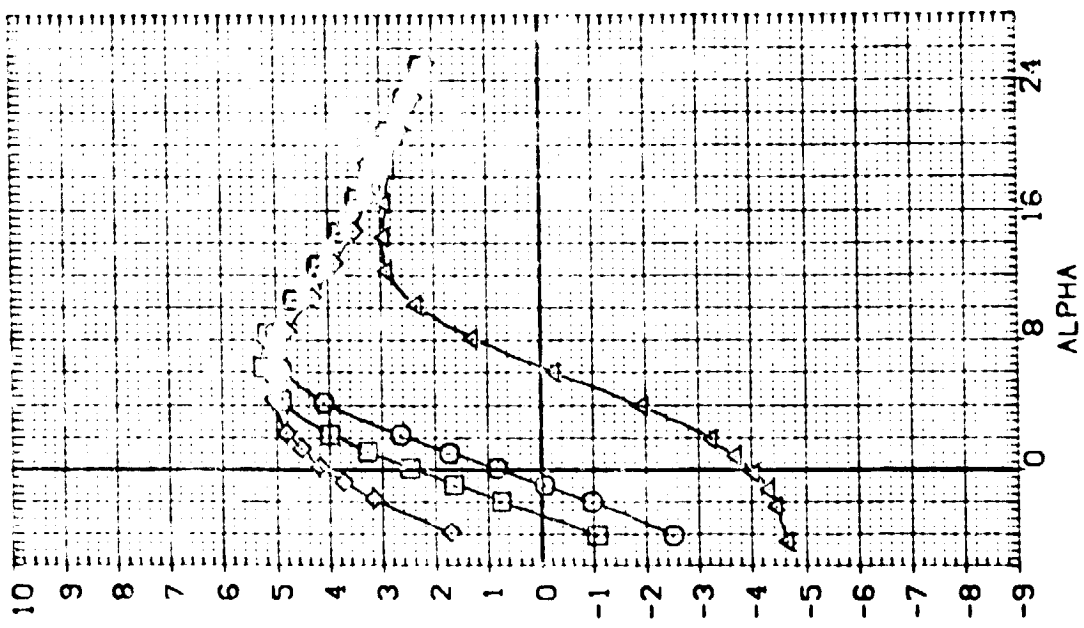


DATA SET SYMBOL    COEFFICIENT    DESCRIPTION

[AD001]	1.731	0.05	0.99	8150075	1.731	2.875	10-CP
[AD002]	1.731	0.05	0.99	8150075	1.731	2.875	10-CP
[AD003]	1.731	0.05	0.99	8150075	1.731	2.875	10-CP
[AD004]	1.731	0.05	0.99	8150075	1.731	2.875	10-CP
[AD005]	1.731	0.05	0.99	8150075	1.731	2.875	10-CP

GP PPS    ELEVON    NACA    LIP    REFERENCE INFORMATION

7.730	1.000	1.000	1.000	SPCF	4.4119	SC.FT.
7.730	5.000	1.000	1.000	WREF	19.2039	W.O.F.S
7.730	15.000	1.000	1.000	WREF	37.8049	W.O.F.S
7.730	20.000	1.000	1.000	WREF	43.5974	W.O.F.S
				WREF	16.0000	W.O.F.S
				WREF	16.0000	W.O.F.S
				SCALE	16.0000	SCALE

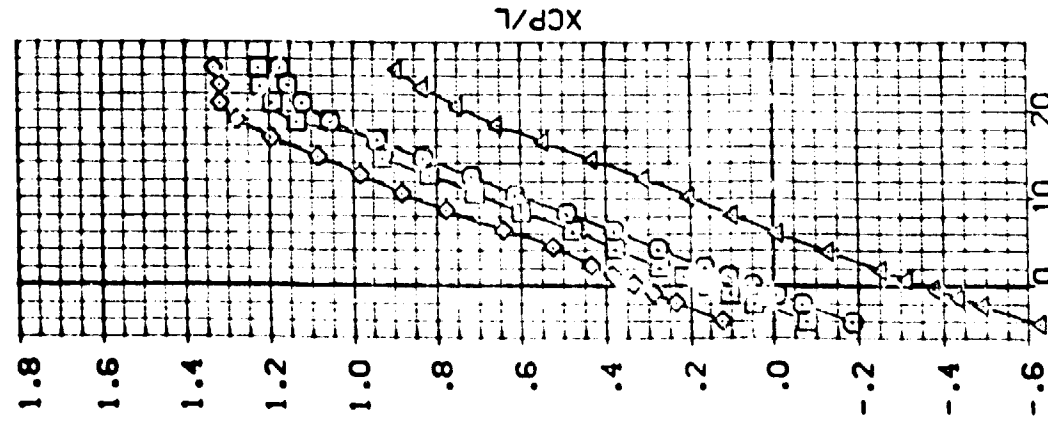
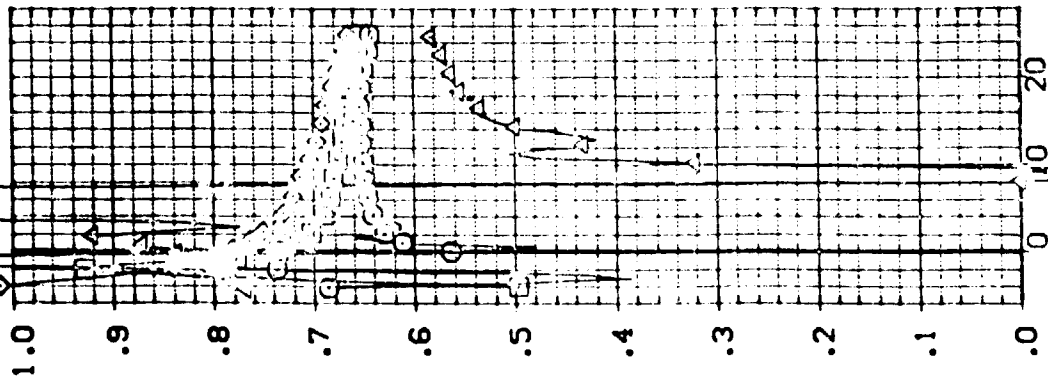
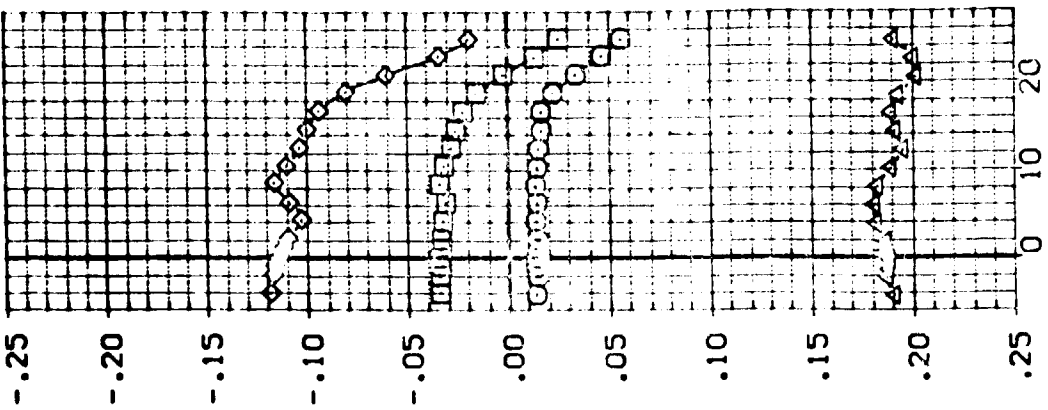


ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND= 7.78 INCHES

(A)MACH = .16



DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	SP-POS	ELEVON	NACOL	LIP	REFERENCE INFORMATION
(AD-028)		NR 701 .0405	ORB 816CS07F 147012487E18VX10+0P	7.780	.000	.000	4.000	SREF 4.4119 SQ.FT.
(AD-028)		NR 701 .0405	ORB 816CS07F 147012487E18VX10+0P	7.780	5.000	.000	4.000	LREF 19.2849 IN-OES
(AD-027)		NR 701 .0405	ORB 816CS07F 147012487E18VX10+0P	7.780	15.000	.000	4.000	BREF 37.9319 IN-OES
(A'AD26)		NR 701 .0405	ORB 816CS07F 147012487E18VX10+0P	7.780	-20.000	.000	4.000	XREF 43.5974 IN-OES
								YREF .00 IN-OES
								ZREF 16.2000 IN-OES
								SCALE .0405



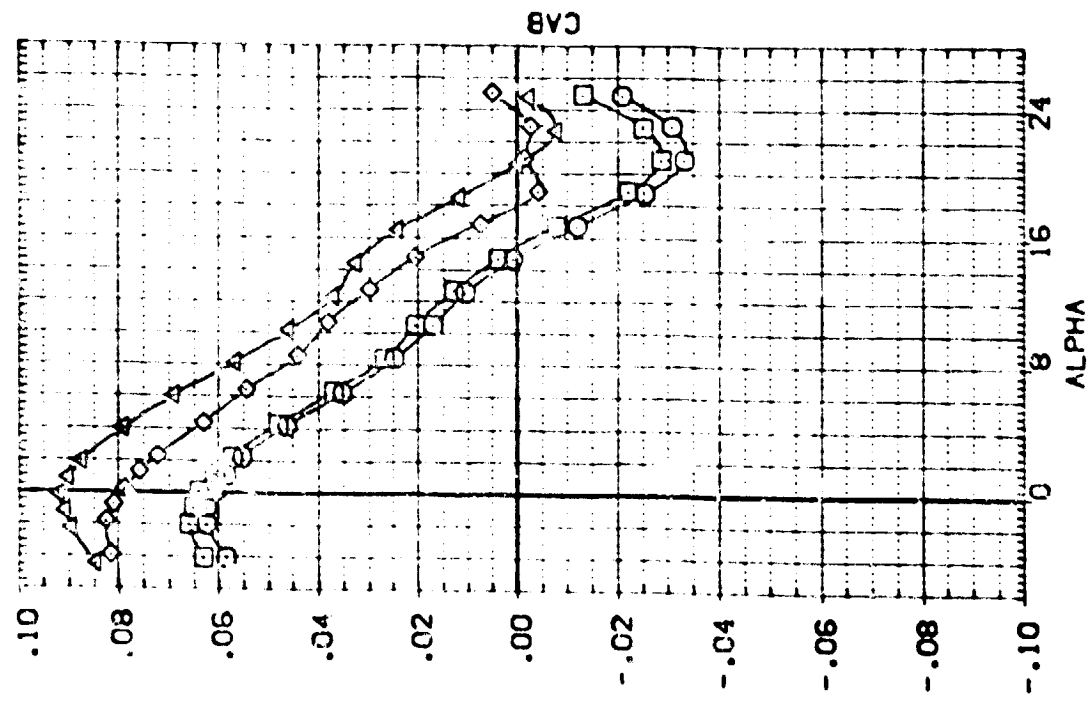
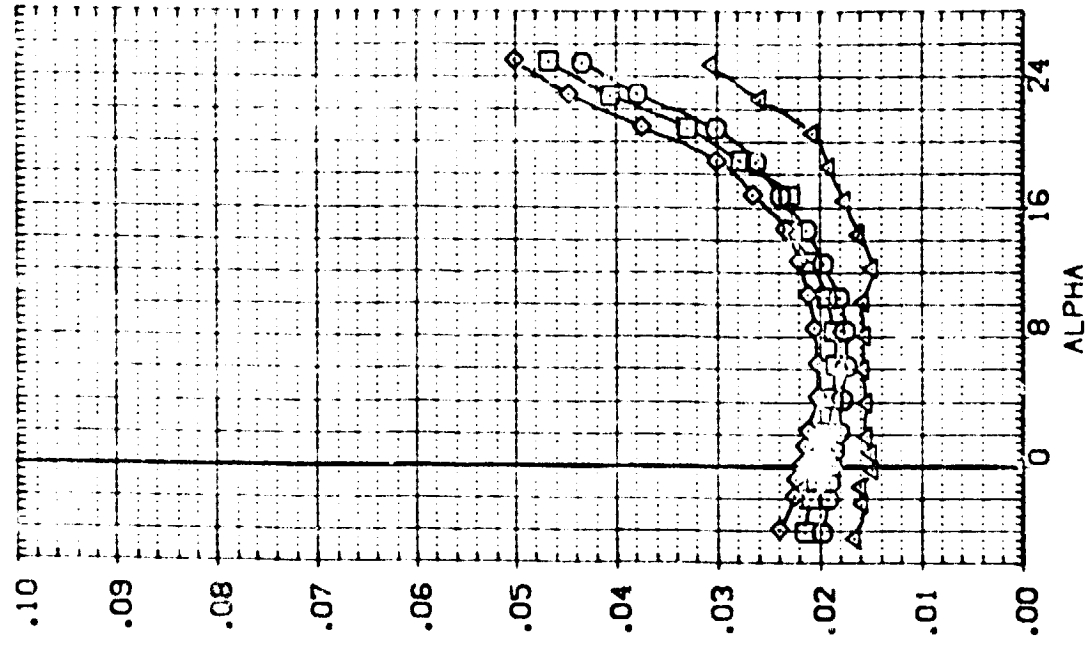
ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND= 7.78 INCHES

(A)MACH = .16

DATA SET SYMBOL CONFIGURATION DESCRIPTION

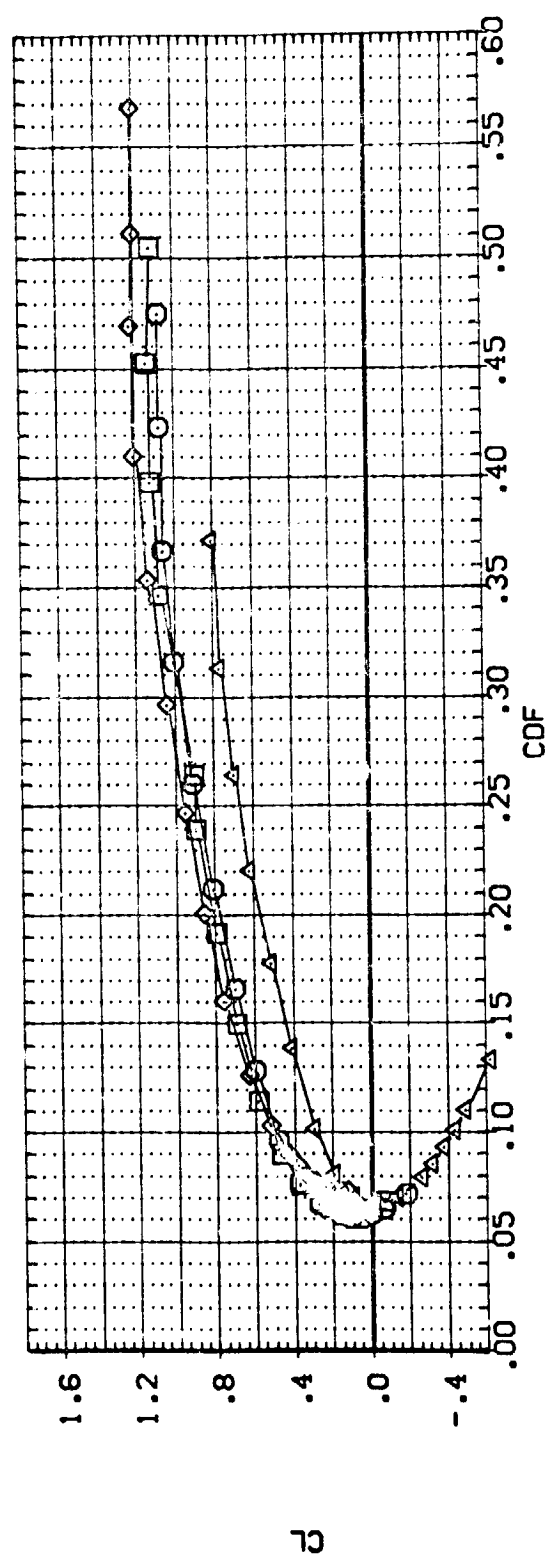
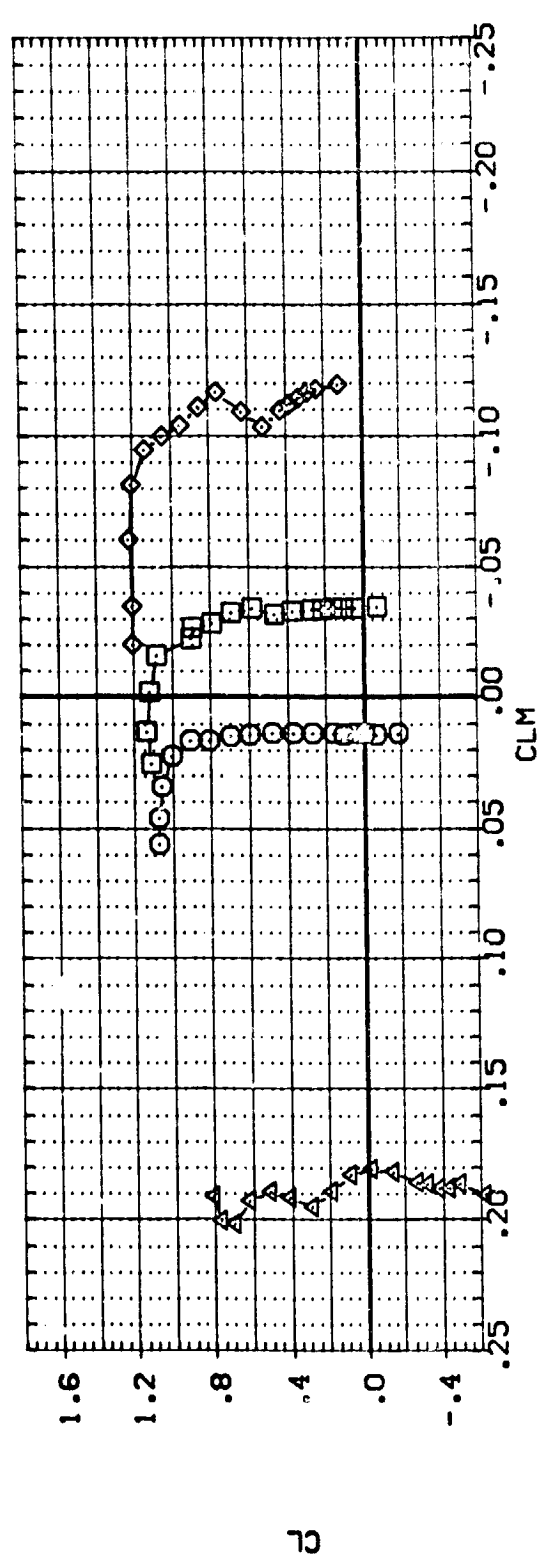
GP-POS	ELEVATION	NACCEL	LIP	REFERENCE INFORMATION	SO-FT
7.780	7.000	.000	4.000	SPREF	4.4119
7.780	5.000	.000	4.000	SPREF	19.2809
7.780	15.000	.000	4.000	SPREF	37.5319
7.780	25.000	.000	4.000	SPREF	43.5974
				SPREF	.0000
				SPREF	16.2000
				SPREF	.0405

GP-POS ELEVATION NACCEL LIP REFERENCE INFORMATION SO-FT



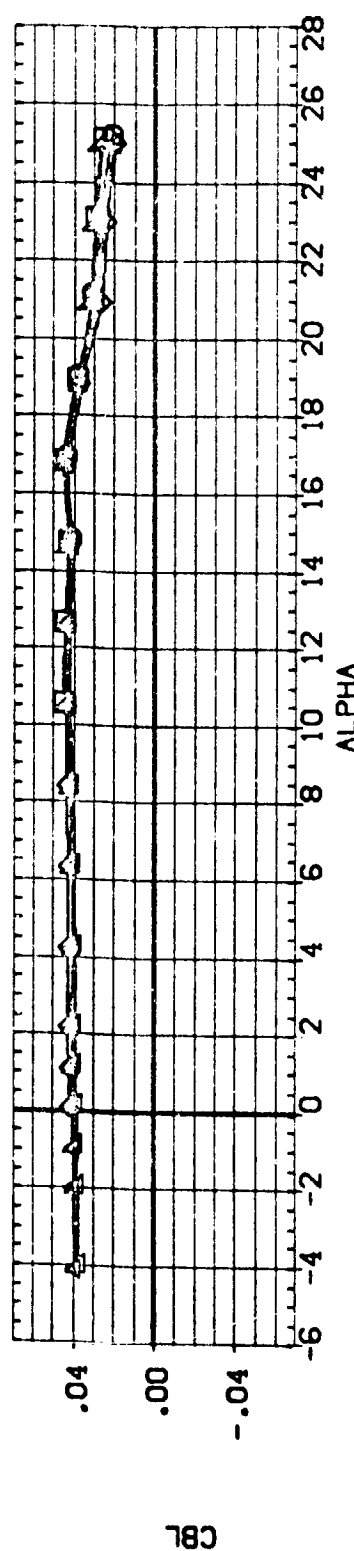
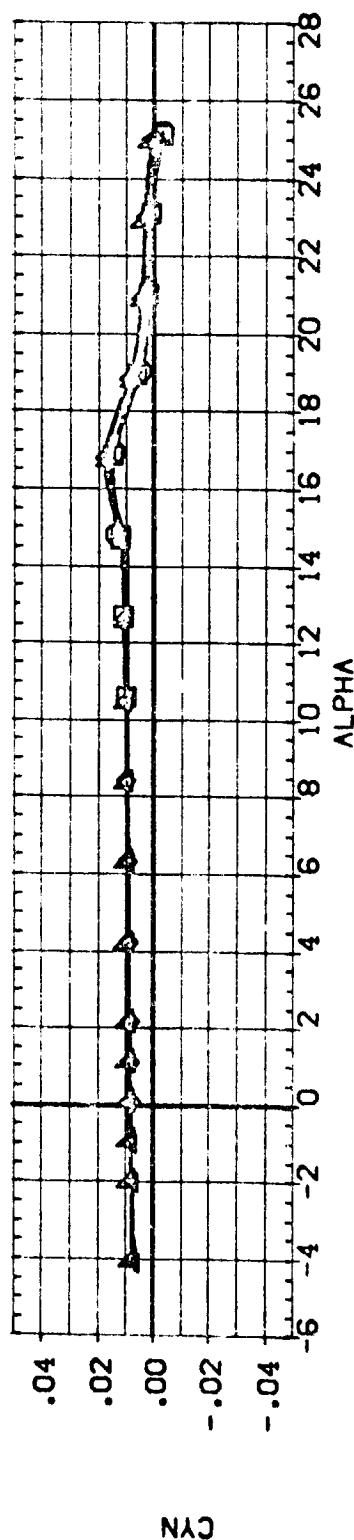
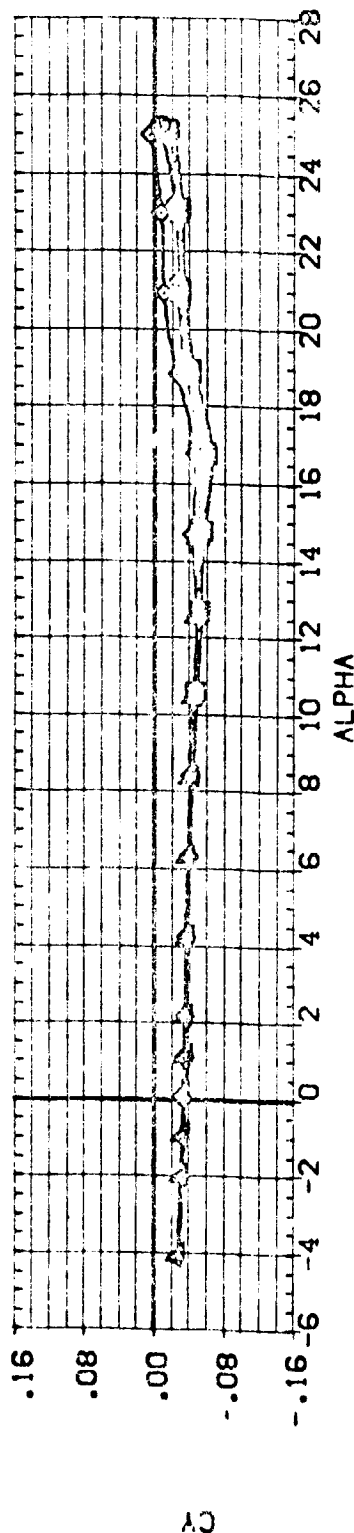
ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND= 7.78 INCHES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	NAC/L	LIP	REFERENCE INFORMATION
(ADG29)	NR.701.0405 QRB B16C307F177G12V87E18V5X10+GP	7.780	.000	.000	4.000	SREF 4.4119 SQ.FT.
(ADG28)	NR.701.0405 QRB B16C307F177G12V87E18V5X10+GP	7.780	5.000	.000	4.000	LREF 19.2338 INCHES
(ADG27)	NR.701.0405 QRB B16C307F177G12V87E18V5X10+GP	7.780	15.000	.000	4.000	BREF 37.5249 INCHES
(ADG26)	NR.701.0405 QRB B16C307F177G12V87E18V5X10+GP	7.780	-20.000	.000	4.000	XREF 43.5974 INCHES
						TRP .0000 INCHES
						ZTRP 16.2000 INCHES
						SCALE .0405



ELEVON EFFECT. 2 CLUSTERS OF 3 NACELLES EACH, HGT. ABOVE GRND= 7.78 INCHES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	AILERON	NACVL	REFERENCE INFORMATION
(80N226)	NR.701.0405 099 816C507E 143612487E 18V5X10+GP	240.000	.000	10.000	.000	SREF 4.4119 SQ.FT.
(80N227)	NR.701.0405 099 816C507E 143612487E 18V5X10+GP	209.000	.000	10.000	.000	LREF 19.2903
(80N249)	NR.701.0405 099 816C507E 143612487E 18V5X10+GP	159.000	.000	10.000	.000	BREF 37.3019
(80N249)	NR.701.0405 099 816C507E 143612487E 18V5X10+GP	109.000	.000	10.000	.000	XREF 43.5974
(80N270)	NR.701.0405 099 816C507E 143612487E 18V5X10+GP	7.780	.000	10.000	.000	YREF 16.2000
						ZREF .0405 INCHES
						SCALE .0405 INCHES



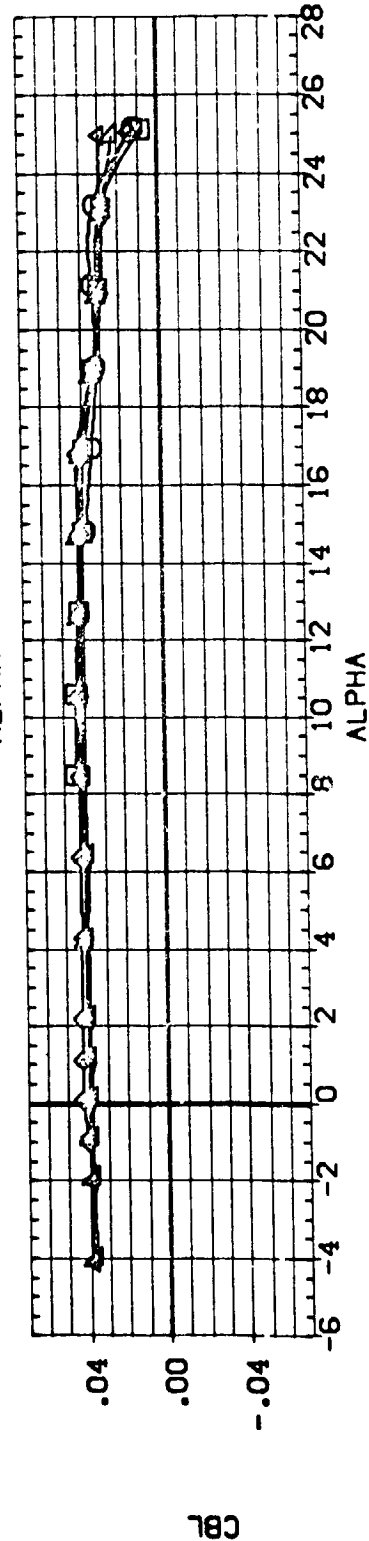
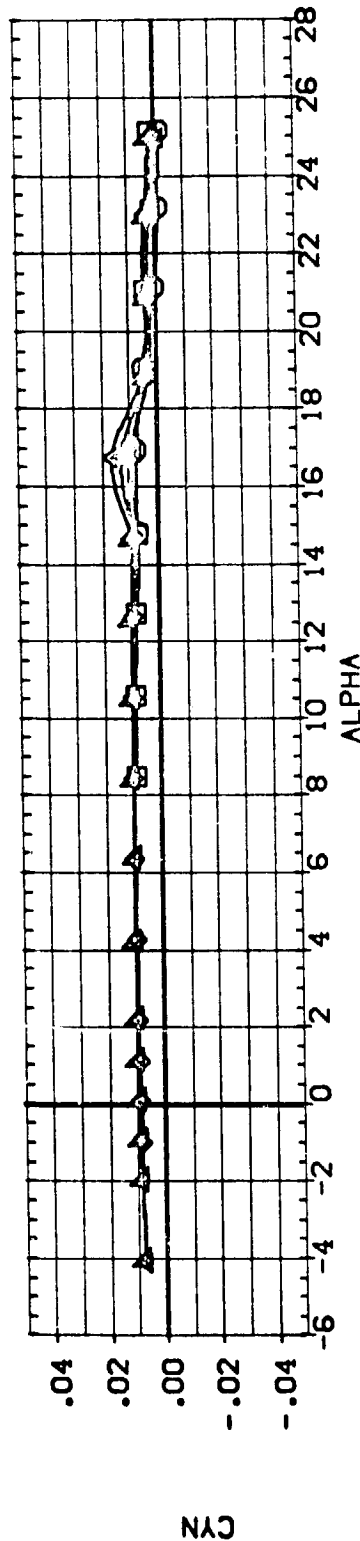
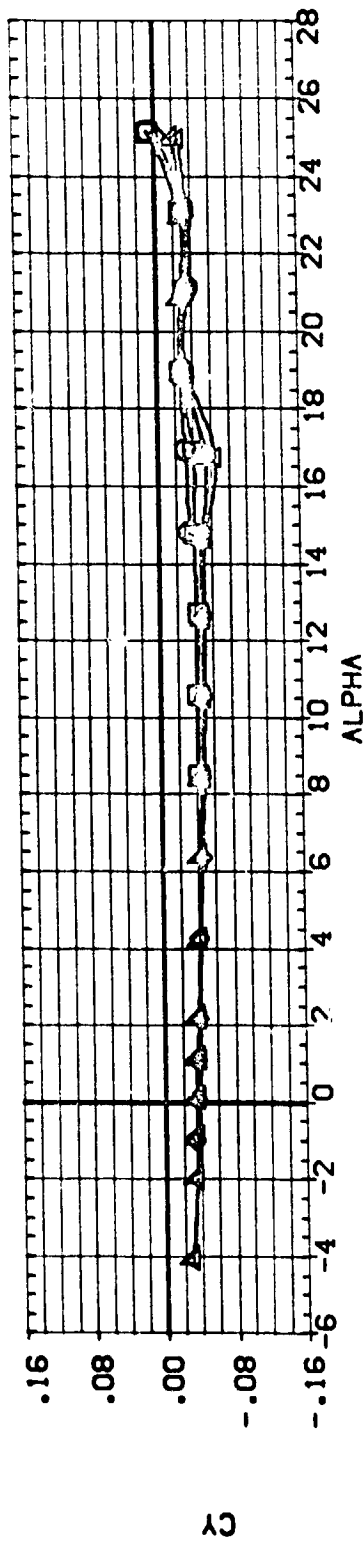
EFFECT OF GROUND PLANE HEIGHT ON AILERON EFFECTIVENESS, BASELINE ABES LOC (4 NAC)

(A)MACH = .16

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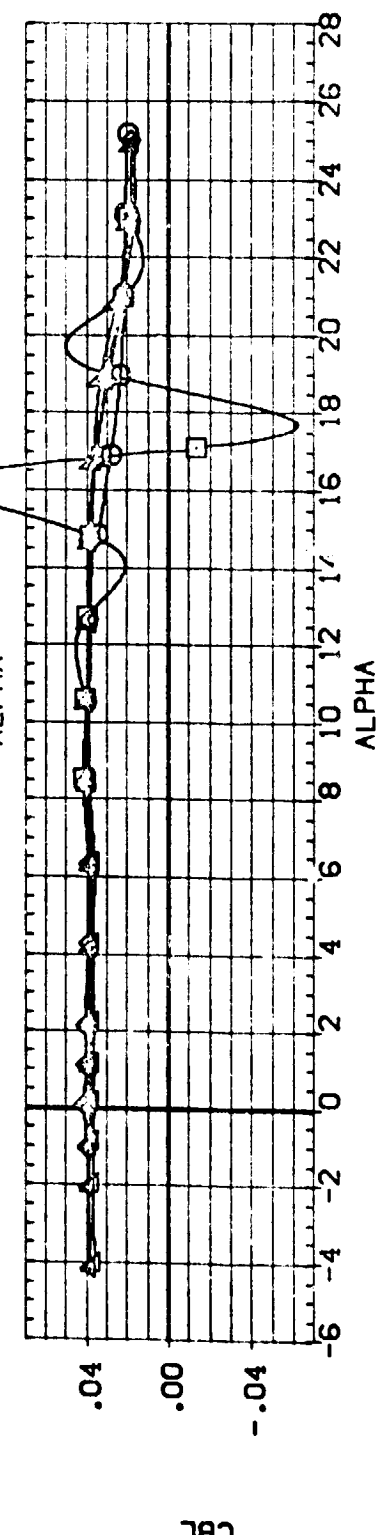
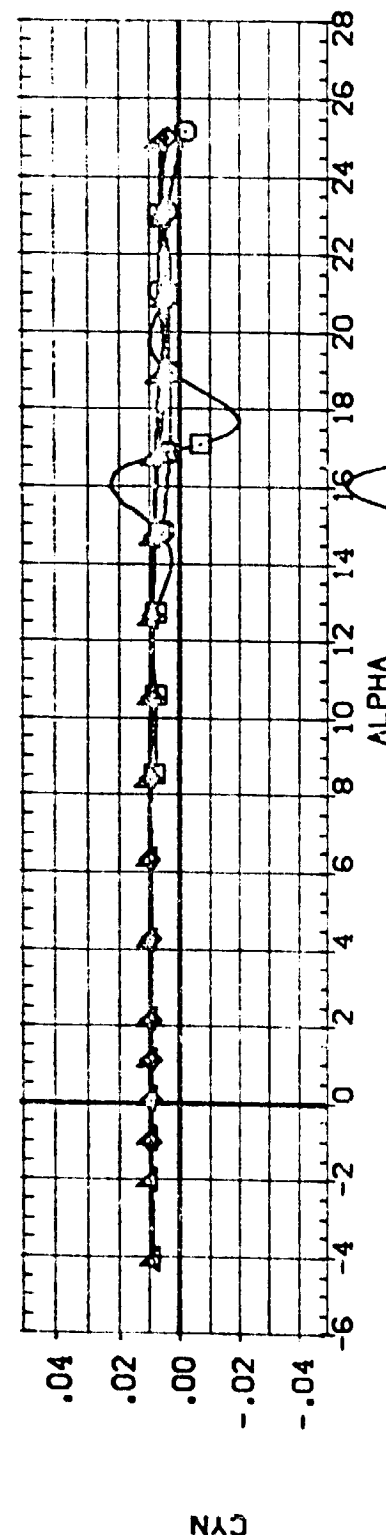
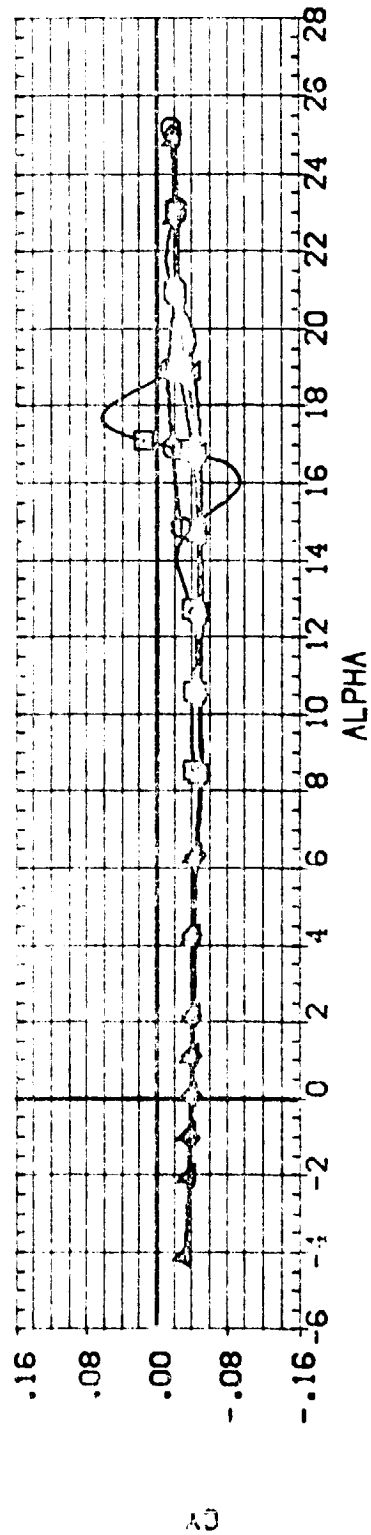


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	AILERON	NACX/L	REFERENCE INFORMATION
(BD-001)	NR.701.0405 ORB B16C507E1J5G12487E18V5X10+GP	240.000	.000	10.000	.000	SREF 4.4119 SQ.FT.
(BD-020)	NR.701.0405 ORB B16C507E1J5G12487E18V5X10+GP	209.000	.000	10.000	.000	LREF 19.2959 INCHES
(BD-028)	NR.701.0405 ORB B16C507E1J5G12487E18V5X10+GP	159.000	.000	10.000	.000	BREF 37.5349 INCHES
(BD-029)	NR.701.0405 ORB B16C507E1J5G12487E18V5X10+GP	109.000	.000	10.000	.000	XREF 43.5974 INCHES
(BD-079)	NR.701.0405 ORB B16C507E1J5G12487E18V5X10+GP	7.780	.000	10.000	.000	YREF 16.2000 INCHES
						ZREF .0405 SCALE



EFFECT OF GROUND PLANE HEIGHT ON AILERON EFFECTIVENESS, BASELINE ABES LOC (6 NAC)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GP-POS	ELEVON	AILERON	NACA/L	REFERENCE INFORMATION	SOURCE
(80-G02)	NR 701 0405 003 8160507 1701 208 18VSA 10+GP	240.000	0.000	10.000	0.00	REF	4.1119
(80-G14)	NR 701 0405 003 8160507 1701 208 18VSA 10+GP	209.000	0.000	10.000	0.00	REF	10.2333
(80-G15)	NR 701 0405 003 8160507 1701 208 18VSA 10+GP	159.000	0.000	10.000	0.00	REF	37.5349
(80-G24)	NR 701 0405 003 8160507 1701 208 18VSA 10+GP	109.000	0.000	10.000	0.00	REF	43.5974
(80-G25)	NR 701 0405 003 8160507 1701 208 18VSA 10+GP	7.780	0.000	10.000	0.00	REF	16.2000
						SCALE	.0405

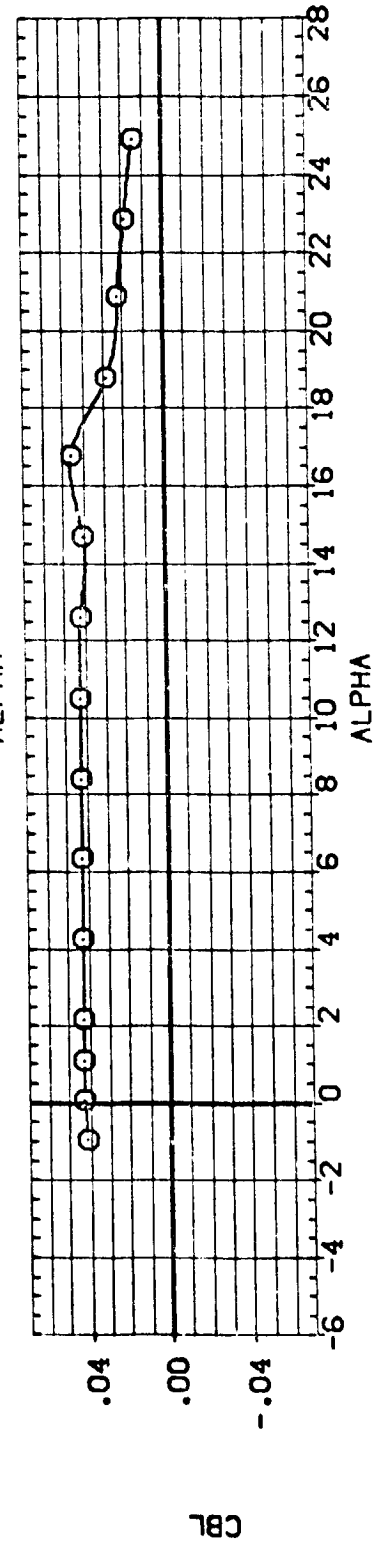
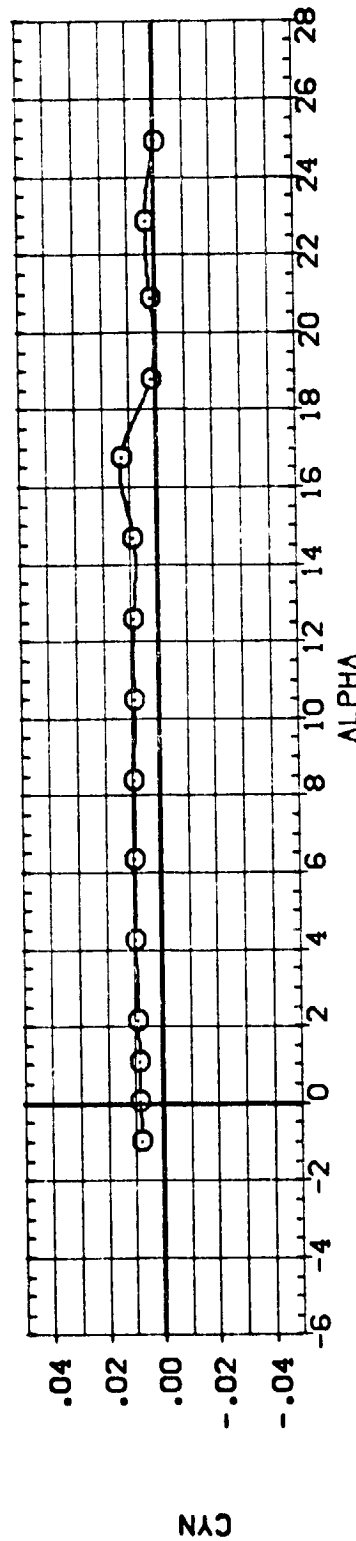
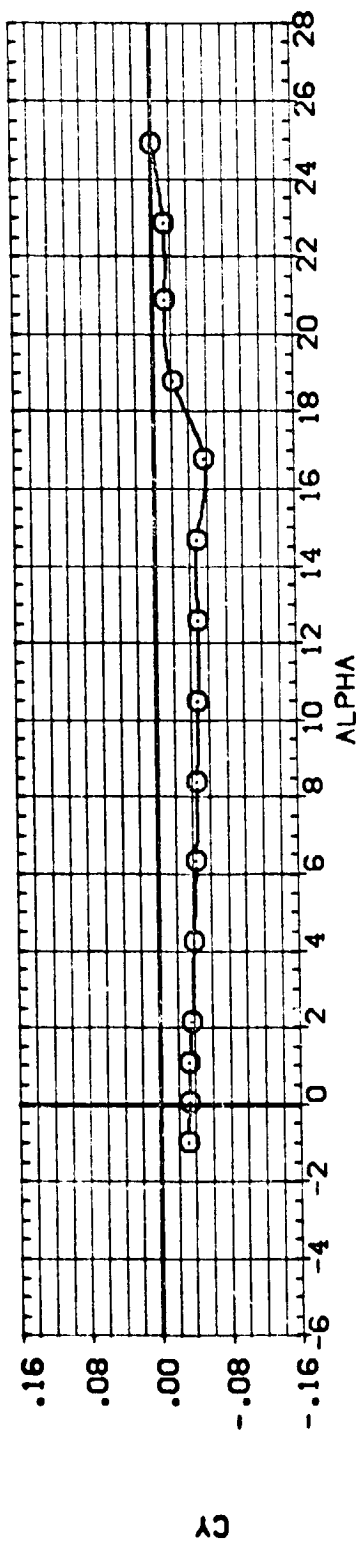


EFFECT OF GROUND PLANE HEIGHT ON AILERON EFFECTIVENESS, 2 CLUSTERS OF 3 NAC.

DATA SET SY80L CONFIGURATION DESCRIPTION  
 (804289) O NR.701.0405 098 8163307F1J6612487E10V5X10+GP

GP-POS 159.000 ELEVON .000 AILERON 10.000 NACA/L .190

REFERENCE INFORMATION  
 SREF 4.4119 50.FT.  
 LREF 19.2969 INCHES  
 BREF 37.9349 INCHES  
 XMRP 43.5974 INCHES  
 YMRP 10.000 INCHES  
 ZMRP 16.2000 INCHES  
 SCALE .0405 SCALE



EFFECT OF GROUND PLANE HEIGHT ON AILERON EFFECTIVENESS, 2 FUS. AND 2 WING ABES

(A) MACH = .16

APPENDIX

TABULATED FORCE DATA

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Tabulation of plotted data are available  
on request from Data Management Services.

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 ORB 810C307MZF1407V5

(R00001) ( 23 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 115.2000 INCHES  
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 B.FLAP = .000  
 RUDDER = .000 REFLARE = .000  
 ELEVON = .000 AILRON = .000

RUN NO. 1/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-3.060	-.06420	.02430	-.01140	-.06540	.02086	.00160	-.00210	-.00300	.59730	.03075
.201	-.970	.02910	.02260	-.01140	.02870	.02313	.00170	-.00200	-.00300	.60320	.03106
.201	.030	.07240	.02330	-.01050	.07240	.02325	.00180	-.00210	-.00300	.71230	.02994
.201	1.060	.11930	.02400	-.01020	.11970	.02177	.00200	-.00200	-.00400	.69030	.03069
.201	2.140	.16650	.02520	-.01080	.16730	.01896	.00190	-.00240	-.00100	.68310	.03079
.201	4.130	.26180	.03300	-.01200	.26350	.01397	.00190	-.00210	-.00300	.67640	.02920
.201	6.220	.35920	.04270	-.01390	.36170	.00347	.00190	-.00230	-.00100	.67380	.02967
.201	8.300	.45670	.05680	-.01510	.46040	-.00782	.00190	-.00220	-.00200	.67180	.02844
.201	10.360	.55820	.07890	-.01530	.56330	-.02285	.00160	-.00210	-.00000	.66970	.03034
.201	12.440	.66600	.11030	-.01730	.67410	-.03387	.00140	-.00190	.00000	.66920	.03082
.201	14.530	.78160	.15000	-.02240	.79440	-.05112	.00190	-.00240	.00000	.67010	.03311
.201	16.610	.90320	.21050	-.03330	.92570	-.05657	.00140	-.00140	-.00700	.67300	.03507
.201	18.710	1.01000	.29000	-.04360	1.04960	-.04950	.00390	.00300	-.00700	.67490	.04048
.201	20.790	1.11280	.36830	-.05320	1.17100	-.05075	.00420	-.00240	-.00100	.67630	.04360
.201	22.870	1.21720	.45740	-.06200	1.29930	-.05183	.00490	-.00770	.00300	.67710	.04943
.201	24.960	1.30210	.54250	-.05710	1.40940	-.05779	.00480	-.00430	-.00200	.67450	.05437
GRADIENT		.04506	.00114	-.00003	.04546	-.00102	.03005	-.00002	.00008	.00288	-.00016



NR. T01.0403 ORB 810C507M2F1J1M07V5X9

REFERENCE DATA

SRCP = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LMRP = 19.2599 INCHES YMRP = .0000 INCHES  
 PRCP = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = .000 B.FLAP = .000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 3/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-3.040	-.06310	.02800	-.01500	-.06650	.02454	.00010	-.00100	.00000	.57880	.02839
.201	-.980	.02710	.02750	-.01460	.02660	.02800	.00020	-.00120	.00000	.85710	.02762
.201	.080	.07470	.02830	-.01470	.07470	.02820	.00010	-.00120	.00100	.73080	.02741
.201	1.090	.12010	.02880	-.01470	.12060	.02637	.00010	-.00130	.00100	.70380	.02855
.201	2.110	.16870	.03130	-.01490	.16980	.02508	.00010	-.00140	.00100	.69070	.02757
.201	4.180	.26290	.03750	-.01510	.26490	.01810	.00010	-.00150	.00200	.68050	.02771
.201	6.230	.35890	.04750	-.01580	.36190	.00829	.00010	-.00160	.00100	.67570	.02718
.201	8.300	.45640	.06350	-.01540	.46080	-.00312	.00220	-.00170	.00100	.67200	.02720
.201	10.400	.55930	.08630	-.01480	.56360	-.01612	.00010	-.00160	.00200	.66940	.02845
.201	12.450	.66100	.11440	-.01440	.67010	-.03084	.00000	-.00150	.00200	.66770	.02979
.201	14.530	.76350	.15030	-.01440	.77880	-.04667	-.00010	-.00230	.00200	.66660	.03120
.201	16.610	.87310	.19620	-.01700	.89270	-.06159	.00050	-.00310	.00300	.66680	.03330
.201	18.690	.98460	.27640	-.02960	1.02120	-.05391	-.00130	-.00440	.00700	.67040	.03612
.201	20.770	1.07930	.36470	-.03990	1.13850	-.04181	.00120	-.00210	.00200	.67250	.04193
.201	22.850	1.17040	.43940	-.03650	1.24920	-.04972	.00260	-.00370	.00300	.67050	.04696
.201	24.910	1.21550	.50870	-.02440	1.31670	-.05071	.00000	.00010	-.00100	.66660	.03323
GRADIENT		.04560	.00127	-.00001	.04608	-.00092	-.00000	-.00007	.00028	.00309	-.00006

NR.701.0405 ORB B10C50702F1J1107V533

(R00004) ( 73 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 INCHES YREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = 4.000 B.FLAP = .000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = .000 AILRON = .000  
 MAC/YL = .000 LIP = 4.000

RUN NO. 4/ 0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-3.1750	-.04770	.02310	-.01760	-.06900	.02140	.00360	-.00190	-.06400	.56720	.02467
.201	-.1774	.02310	.02330	-.01760	.02470	.02373	.00390	-.00290	-.06400	.91930	.02493
.201	.1774	.07190	.02430	-.01740	.07190	.02426	.00360	-.00260	-.06400	.74730	.02426
.201	1.090	.12010	.02320	-.01760	.12050	.02295	.00390	-.00390	-.06400	.71300	.02421
.201	2.100	.16760	.02820	-.01760	.16850	.02200	.00390	-.00370	-.06400	.69750	.02767
.201	4.180	.26560	.03390	-.01690	.26240	.01460	.00390	-.00430	-.06400	.68390	.02940
.201	6.240	.35780	.04390	-.01690	.36050	.00468	.00390	-.00320	-.06400	.67640	.02316
.201	8.300	.45790	.06140	-.01930	.46200	-.00342	.00400	-.00400	-.06400	.67500	.02372
.201	10.370	.55730	.08320	-.01860	.56360	-.01863	.00420	-.00710	-.06400	.67190	.02226
.201	12.460	.66000	.11220	-.01840	.66870	-.03269	.00490	-.00830	-.06400	.66990	.0226
.201	14.590	.76390	.15070	-.01860	.77700	-.04576	.00420	-.00940	-.06400	.66870	.0204
.201	16.810	.87460	.19760	-.01970	.89450	-.06071	.00460	-.01120	-.06400	.66790	.03227
.201	18.700	.98160	.27870	-.03090	1.01890	-.05142	.00700	-.00610	-.06400	.67070	.03612
.201	20.780	1.07740	.36290	-.03640	1.13590	-.04329	.00790	-.00490	-.06400	.67210	.04204
.201	22.660	1.17290	.44120	-.04210	1.25490	-.05728	.00950	-.01160	-.06400	.67200	.04674
.201	24.940	1.25490	.52230	-.05070	1.35770	-.05545	.01190	-.01130	.00000	.67090	.05125
GRADIENT	.04555	.00127	.00109	.04596	.00092	-.00067	-.00006	-.00034	.00043	.00226	-.00006

NR.701.0405 ORB B10C50702F1J1107V533

(R00004) ( 73 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 INCHES YREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = .000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = .000 AILRON = .000  
 MAC/YL = .000 LIP = 4.000

RUN NO. 5/ 0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.100	.09460	.01970	-.03010	.09660	.00561	-.00490	.00070	.26200	.76970	.03541
.201	-6.090	.09410	.01830	-.02470	.09210	.01624	-.00700	.00120	.17870	.75690	.03086
.201	-4.090	.07960	.02490	-.01600	.07960	.02443	-.00340	-.00010	.09000	.74090	.02827
.201	-2.080	.07960	.02640	-.01560	.07590	.02416	-.00180	-.00070	.04690	.73390	.02600
.201	-.010	.07430	.02770	-.01490	.07410	.02762	.00000	-.00010	.00300	.72970	.02734
.201	2.000	.07100	.02700	-.01590	.07160	.02690	.00160	.00010	-.04000	.73370	.02617
.201	4.080	.07290	.02940	-.01620	.07250	.02335	.00360	.00010	-.06390	.75640	.02625
.201	6.090	.07700	.03790	-.02400	.07700	.01773	.00700	-.00420	-.06390	.77190	.03037
.201	12.090	.08370	.06400	-.02970	.08370	.07463	.00890	-.00710	-.06000	.78790	.03468
GRADIENT	-.00092	-.00002	.00012	-.00002	-.00092	.00012	.00067	-.00037	-.00147	.00114	.00001



### PARAMETRIC DATA

ALPHA =	10.000	B. FLAP =	.0000
RUDDER =	.0000	REFLARE =	.0000
ELEVON =	.0000	AILERON =	.0000
NACVAL =	.0000	LIP =	4.0000

TEST	MEAN	STDEV	CONFIDENCE INTERVAL	MIN	MAX
1.0	1.0	1.0	-1.0	0.0	2.0
2.0	2.0	2.0	-2.0	0.0	4.0
3.0	3.0	3.0	-3.0	0.0	6.0
4.0	4.0	4.0	-4.0	0.0	8.0
5.0	5.0	5.0	-5.0	0.0	10.0

## REFERENCE DATA

1987 =	4,4119	50.17.	1000 =	43,9974	INOES
1977 =	19,8999	0.65	100 =	.0000	INOES
1987 =	37,9349	1.6423	2000 =	18,2000	INOES
1987 =					SCALE

Model	BETA	Q	QSP	QLM	ON	CAP	QLM	CSL	CY	XCP/L	CAB
.201	-12.090	.56120	.07080	-.03510	.56440	-.03599	-.00660	.01160	.27200	.68150	.04137
.201	-8.040	.56690	.07760	-.02590	.57360	-.02623	-.00750	.00620	.17900	.67620	.03330
.201	-4.030	.56150	.06250	-.01930	.56720	-.02100	-.00370	.00350	.06950	.67220	.03015
.201	-2.020	.55690	.06410	-.01650	.56490	-.01604	-.00170	.00060	.04600	.67050	.02656
.201	-.080	.55610	.06510	-.01520	.56240	-.01642	.00000	-.00160	.00300	.66970	.02636
.201	1.990	.55560	.06510	-.01610	.56190	-.01637	.00170	-.00450	.003900	.67030	.02607
.201	4.020	.56370	.06340	-.01690	.56270	-.01628	.00410	-.00730	.06470	.67210	.02941
.201	6.050	.56170	.07630	-.02600	.56660	-.02391	.00660	-.01290	.17500	.67640	.03196
.201	12.090	.56610	.07320	-.03510	.57200	-.03024	.01090	-.01620	.27000	.68200	.03705
.201								.00334	.02445	-.00002	-.00010

## PARAMETRIC DATA

ALPHA	=	15,000	B. FLAP	=	.000
RUDDER	=	.000	R. FLARE	=	.000
ELEVON	=	.000	A. LIRON	=	.000
NACVAL	=	.000	LIP	=	4,000

[illegible]

## REFERENCE DATA

SPOT =	4,411.9	50.07	100-P	=	43,5974	INCHES
URG =	19,277.9	INCHES	100-P	=	.0000	INCHES
BOD =	37,934.9	INCHES	200-P	=	18,2000	INCHES
SCALE =					.0003	SCALE

MOCH	BETA	QL	CLF	QLM	ON	CAF	QLN	CSL	CY	ACP/L	CAS
.P01	-12.100	.84300	.18245	-.04400	.83560	-.07012	-.00580	.01550	.26500	.67840	.04617
.P01	-6.080	.83480	.16790	-.05000	.84900	-.06261	-.00620	.01130	.17400	.67290	.03758
.P01	-4.010	.82760	.17200	-.02000	.84300	-.05666	-.00250	.00740	.06500	.65296	.03271
.P01	-2.030	.82500	.17370	-.01710	.84130	-.05449	-.00040	.00110	.04500	.63790	.03271
.P01	.000	.82250	.17530	-.01690	.83920	-.05212	.00070	-.00270	.00200	.66720	.03147
.P01	2.000	.82060	.17470	-.01680	.83750	-.05233	.00220	-.00630	-.03900	.66710	.03141
.P01	4.000	.81930	.17310	-.01670	.83570	-.05343	.00400	-.01000	-.08200	.66600	.03186
.P01	6.030	.82290	.16610	-.02680	.83780	-.05913	.00800	-.01710	-.17200	.67140	.03447
.P01	12.100	.83240	.16410	-.04190	.84590	-.06554	.00980	-.02120	-.26900	.67770	.04169
.P01	22.000	.89100	.00016	.00015	-.00792	.00043	.00076	-.00164	-.02073	-.00006	-.00017

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL 701

NR.701.0405 ORB B16C5077F1J3407E18V5310

PARAMETRIC DATA

ALPHA = 10.000  
RFLARE = 0.000  
ELEVON = 0.000  
AILRON = 0.000  
LIP = 0.000

SPOT = 4.4119 88. FT. 1000 = 43.5974 INCHES  
LIP = 19.7999 INCHES 1000 = 0.0000 INCHES  
BIP = 37.9349 INCHES 1000 = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 8/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	QF	QJ	ON	CAF	QJN	QJN	CSL	CY	KCP/L	CAB
.E01	-12.103	1.00710	.25940	-.03290	1.03880	-.07828	.00000	.00000	.00210	.25700	.67810	.04332
.E01	-8.090	.99420	.26480	-.03670	1.02680	-.06818	.00000	.00000	.01890	.15800	.67350	.04000
.E01	-4.070	.98200	.26190	-.03320	1.02330	-.04893	-.00120	-.00120	.00710	.08100	.67160	.03784
.E01	-2.020	.96900	.26470	-.03060	1.02430	-.04629	.00170	.00150	.00350	.03000	.67070	.03715
.E01	0.010	.96670	.26640	-.03200	1.02710	-.04317	.00320	.00320	.00260	-.00600	.67110	.03815
.E01	2.000	.96220	.26730	-.03010	1.02250	-.04289	.00520	.00520	.00000	-.00900	.67050	.03653
.E01	4.080	.96160	.26020	-.04020	1.01980	-.04931	.01000	.01000	-.01220	-.00900	.67100	.03558
.E01	6.090	.96260	.27710	-.05410	1.01980	-.05246	.01140	.01140	-.01550	-.00900	.67900	.03799
.E01	12.090	.96100	.27090	-.05410	1.01980	-.05690	.01140	.01140	-.01550	-.00900	.67900	.04447
.E01	GRADIENT	-.00046	-.00004	.00021	-.00046	.00013	.00099	.00099	-.00156	-.00112	-.00007	-.00028

NR.701.0405 ORB B16C5077F1J3407E18V5310

NR.701.0405 ORB B16C5077F1J3407E18V5310

PARAMETRIC DATA

BETA = 0.000  
RFLARE = 0.000  
ELEVON = 0.000  
AILRON = 0.000  
LIP = 0.000

SPOT = 4.4119 88. FT. 1000 = 43.5974 INCHES  
LIP = 19.7999 INCHES 1000 = 0.0000 INCHES  
BIP = 37.9349 INCHES 1000 = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 3/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	QF	QJ	ON	CAF	QJN	QJN	CSL	CY	KCP/L	CAB
.E01	-3.000	.03910	.03110	-.04410	.03770	.03319	.00120	.00120	-.00140	-.00100	1.08190	.01236
.E01	-9.900	.13490	.03260	-.04460	.13400	.03500	.00110	.00110	-.00140	.00000	.77950	.01849
.E01	-1.000	.18220	.03460	-.04490	.18250	.03491	.00110	.00110	-.00140	-.00100	.74770	.01634
.E01	1.130	.23010	.03770	-.04420	.23060	.03313	.00100	.00100	-.00170	.00000	.72870	.01827
.E01	2.130	.27590	.04110	-.04390	.27750	.03065	.00120	.00120	-.00160	.00000	.71680	.01634
.E01	4.200	.36870	.05050	-.04350	.37140	.02333	.00120	.00120	-.00160	-.00100	.70180	.01115
.E01	6.300	.46310	.06300	-.04360	.46730	.01258	.00120	.00120	-.00190	-.00100	.69340	.01806
.E01	8.360	.56150	.06360	-.04360	.56770	.01002	.00120	.00120	-.00190	.00000	.68760	.01806
.E01	10.440	.66120	.11340	-.04230	.67420	-.01207	.00160	.00160	-.00150	-.00200	.68250	.01806
.E01	12.510	.77070	.14430	-.04240	.78370	-.02609	.00160	.00160	-.00160	-.00200	.67730	.01806
.E01	14.620	.88160	.18560	-.04340	.90000	-.04262	.00220	.00220	-.00170	-.00200	.67800	.01806
.E01	16.740	.99440	.23970	-.04630	1.02130	-.05693	.00370	.00370	-.00150	-.00200	.67980	.01806
.E01	18.790	1.08200	.31100	-.05290	1.13440	-.02447	.00270	.00270	-.00150	-.00200	.68020	.01806
.E01	20.840	1.19240	.42650	-.07130	1.26610	-.02673	.00420	.00420	-.00150	-.00200	.67890	.01806
.E01	22.910	1.25690	.49930	-.05360	1.35180	-.03045	.00620	.00620	-.00150	-.00200	.67920	.01806
.E01	24.940	1.26050	.54660	-.03940	1.37430	-.03433	.00510	.00510	-.00150	-.00200	.67920	.01806
.E01	GRADIENT	.04561	.00299	.00013	.04641	-.00137	-.00001	-.00001	-.00001	.00002	-.04756	-.00008

NR. 701.0405 ORB 816C507F1J3487V5X10

(R0ND011) (23 JUN 73)

## REFERENCE DATA

SCF = 4.4119 SQ.FT. YARP = 43.9974 INCHES  
 LRF = 19.2999 INCHES YARP = .0000 INCHES  
 BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AIRLON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 11/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-3.090	-.06600	.03080	.00740	-.07040	.02686	.00100	-.00100	-.00300	.69600	.01560
.201	-.990	.02320	.02660	.00780	.02470	.02923	.00100	-.00100	-.00300	.54830	.01561
.201	.030	.07210	.02900	.00770	.07210	.02897	.00110	-.00120	-.00200	.62120	.01598
.201	1.090	.12060	.03070	.00790	.12110	.02847	.00090	-.00140	-.00100	.63640	.01548
.201	2.090	.16630	.03290	.00850	.16740	.02621	.00090	-.00130	-.00100	.64170	.01575
.201	4.170	.28060	.03640	.00850	.26270	.01970	.00110	-.00160	-.00100	.64830	.01590
.201	6.290	.35640	.04640	.00730	.36190	.00906	.00110	-.00160	-.00300	.65260	.01583
.201	8.300	.43700	.06470	.00800	.46150	-.00201	.00130	-.00170	-.00300	.65370	.01611
.201	10.770	.55690	.08750	.00890	.56560	-.01461	.00130	-.00160	-.00300	.65430	.01661
.201	12.490	.66910	.11820	.00910	.67660	-.02943	.00150	-.00160	-.00300	.65510	.01765
.201	14.930	.77710	.15390	.00890	.79080	-.04628	.00170	-.00170	-.00400	.65590	.02057
.201	16.610	.88520	.20280	.07460	.91070	-.05992	.00300	-.00230	-.00600	.65800	.02296
.201	18.700	.98660	.29650	-.01180	1.03170	-.03620	.00300	-.00140	-.00700	.66410	.02741
.201	20.780	1.09110	.37760	-.02140	1.15410	-.03424	.00310	-.00120	-.00200	.66660	.03157
.201	22.690	1.17570	.45360	-.02120	1.25090	-.03673	.00370	-.00330	-.00000	.66670	.03494
.201	24.910	1.21760	.51710	-.00770	1.31760	-.04134	.00690	-.00090	-.01000	.66200	.03953
GRADIENT	.04566	.00109	.00316	.00316	.04620	-.00104	.00700	-.00009	.00034	-.00076	.00012

NR. 701.0405 ORB 816C507F1J3487V5X10

(R0ND012) (23 JUN 73)

## REFERENCE DATA

SCF = 4.4119 SQ.FT. YARP = 43.9974 INCHES  
 LRF = 19.2999 INCHES YARP = .0000 INCHES  
 BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AIRLON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 12/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.09720	.01230	-.00390	.09720	.01223	-.00630	.00460	.25200	.66190	.02116
.201	-8.090	.06610	.02040	-.00190	.06610	.02036	-.00360	.00490	.16600	.66640	.01796
.201	-4.010	.06030	.02710	.00340	.06030	.02698	-.00250	.00220	.09200	.64440	.01628
.201	-2.010	.07350	.02920	.00560	.07350	.02911	-.00070	.00030	.04000	.63290	.01596
.201	.000	.07430	.02990	.00650	.07440	.02979	.00090	-.00100	-.00100	.62830	.01597
.201	2.010	.07390	.02870	.00610	.07390	.02867	.00290	-.00300	-.04400	.63030	.01631
.201	4.030	.07360	.02630	.00360	.07390	.02622	.00460	-.00470	-.06600	.64150	.01666
.201	6.070	.07460	.02060	-.00130	.07460	.02011	.00700	-.00660	-.17200	.66660	.01676
.201	8.070	.07720	.01290	-.00490	.07730	.01279	.00700	-.00590	-.25700	.66290	.02216
GRADIENT	-.00073	-.00011	.00006	.00006	-.00072	-.00010	.00069	-.00066	-.02090	-.00041	.00006

NR. 01.0405 ORB B16C507F1J3M87V3X10

ORND013) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. YREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 13/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CBF	CLM	CM	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-12.000	.33180	.03040	-.00350	.33320	.00006	-.00820	.01070	.23700	.66390	.02236
.201	-8.040	.32540	.03660	-.00060	.32740	.00690	-.00720	.00820	.17200	.66080	.01669
.201	-4.080	.31970	.04110	.00430	.31810	.01234	-.00310	.00330	.06200	.65510	.01645
.201	-2.000	.31390	.04300	.00820	.31610	.01445	-.00100	.00060	.04000	.65790	.01596
.201	.010	.30940	.04340	.00750	.31210	.01319	.00060	-.00170	-.00200	.65150	.01601
.201	2.000	.30490	.04250	.00660	.31150	.01423	.00290	-.00390	-.04470	.65230	.01666
.201	4.080	.30030	.04190	.00400	.31190	.01267	.00150	-.00640	-.06750	.65530	.01711
.201	6.040	.30090	.03990	-.00020	.31260	.00700	.00920	-.01100	-.17700	.66030	.01916
.201	12.110	.31350	.03090	-.00490	.31490	.00239	.01000	-.01260	-.26400	.66560	.02231
GRADIENT	-.00057	-.00005	-.00005	-.00001	-.00065	.00002	.00101	-.00121	-.02110	-.00001	.00010

NR. 01.0405 ORB B16C507F1J3M87V3X10

ORND014) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. YREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 14/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CBF	CLM	CM	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-12.000	.37160	.07820	-.00350	.37650	-.02637	-.00990	.01650	.26400	.66220	.02273
.201	-8.040	.36930	.08240	.00060	.37490	-.02176	-.00790	.01230	.16800	.65940	.01959
.201	-4.040	.36430	.08670	.00530	.37090	-.01650	-.00270	.00570	.07900	.65660	.01746
.201	-2.010	.36360	.08910	.00690	.37020	-.01303	-.00070	.00230	.03700	.65560	.01737
.201	.010	.36180	.08990	.00670	.36870	-.01369	.00110	-.00130	-.00300	.65440	.01716
.201	1.000	.35370	.08770	.00770	.36750	-.01492	.00370	-.00500	-.04400	.65510	.01760
.201	4.000	.36020	.08610	.00520	.36460	-.01637	.00520	-.00480	-.06670	.65660	.01795
.201	6.070	.35930	.08170	.00310	.36290	-.02043	.01000	-.01530	-.17600	.65980	.01922
.201	12.100	.35870	.07800	-.00320	.36310	-.02390	.01240	-.01960	-.27100	.66210	.02238
GRADIENT	-.00057	-.00006	-.00006	.00003	-.00056	.00002	.00197	-.00180	-.02041	-.00003	.00006

DATE 27 JUN 73 TIBULATED SOURCE FORCE DATA-NAL 701

(R0N013) ( 23 JUN 73 )

NR.701.0405 ORB B16C507F1J3W8TV5X10

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
LREF = 19.2939 INCHES YRRP = .0000 INCHES  
BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 15/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -16.000  
RUDDER = .000 RFLARE = .000  
ELEVON = .000 AILRON = .000  
NACX/L = .000 LIP = 4.000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.63400	.16993	-.00970	.34951	-.06019	-.00680	.02090	.25300	.66410	.02456
.201	-8.050	.83690	.17490	-.00160	.33310	-.05636	-.00530	.01520	.16100	.66060	.02197
.201	-4.010	.83440	.17750	.00410	.93140	-.05306	-.00160	.00720	.07700	.65820	.01960
.201	-2.000	.83470	.17840	.00510	.83190	-.05239	.00050	.00260	.03600	.65780	.02096
.201	.010	.83730	.17990	.00570	.85480	-.05178	.00240	-.00210	-.00500	.65750	.02181
.201	2.000	.83600	.17860	.00510	.85320	-.05265	.00450	-.00710	-.04500	.65780	.02247
.201	4.030	.83230	.17720	.00490	.84930	-.05287	.00680	-.01180	-.08600	.65790	.02083
.201	8.060	.82570	.17260	.00040	.84180	-.05339	.00960	-.02020	-.16700	.65970	.02058
.201	12.090	.82350	.17040	-.00560	.83900	-.05683	.01090	-.02490	-.26300	.66240	.02248
GRADIENT	-.00014	-.00002	-.00002	.00008	-.00014	.00001	.00103	-.00237	-.00205	-.00005	.00020

(R0N016) ( 23 JUN 73 )

NR.701.0405 ORB B16C507F1J3W8TV5X10

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
LREF = 19.2939 INCHES YRRP = .0000 INCHES  
BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 16/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

ALPHA = 18.000 B.FLAP = -16.000  
RUDDER = .000 RFLARE = .000  
ELEVON = .000 AILRON = .000  
NACX/L = .000 LIP = 4.000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.63160	.17370	-.01310	1.00810	-.05200	-.00190	.01640	.26300	.66640	.02780
.201	-8.070	.97430	.28680	-.01570	1.01470	-.04073	-.00580	.00990	.17000	.66550	.02564
.201	-4.010	.98320	.29420	-.01260	1.02370	-.03666	-.00270	.00590	.07900	.66440	.02497
.201	-2.010	.98910	.29830	-.01320	1.03250	-.03466	.00020	.00350	.03400	.66450	.02704
.201	.000	.98900	.29910	-.01200	1.03270	-.03395	.00250	.00100	-.00700	.66420	.02750
.201	2.000	.98510	.29470	-.01110	1.02950	-.03708	.00530	-.00240	-.04900	.66380	.02825
.201	4.020	.98140	.28710	-.00890	1.02160	-.04279	.00800	-.00750	-.08900	.66310	.02592
.201	8.060	.96940	.27770	-.00980	1.00720	-.04756	.01060	-.01300	-.17700	.66340	.02433
.201	12.120	.95810	.27310	-.01580	.99510	-.04802	.01300	-.01630	-.27700	.66570	.02568
GRADIENT	-.00033	-.00009	-.00009	.00047	-.00061	.00003	.00132	-.00163	-.02086	-.00016	.00015

NR.701.0405 ORR B16C507F1J3W87E18V5X10

(R0N017) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 42.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAF = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVEN = -5.000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 17/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MA	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-4.150	-.23260	.03630	.05830	-.23470	.02135	.00110	-.00110	-.00400	.74920	.01307
.201	-2.080	-.13650	.03140	.05880	-.13760	.02644	.00100	-.00100	-.00300	.81330	.01350
.201	-1.340	-.08950	.02930	.05920	-.09000	.02767	.00110	-.00100	-.00300	.89420	.01334
.201	-.010	-.04210	.02830	.05970	-.04210	.02830	.00110	-.00090	-.00400	1.16880	.01322
.201	1.030	.00770	.02800	.06010	.00820	.02789	.00120	-.00080	-.00400	-1.04650	.01327
.201	2.060	.05610	.02790	.06090	.05710	.02589	.00120	-.00090	-.00400	.27740	.01351
.201	4.090	.14430	.03090	.06140	.14670	.02043	.00150	-.00080	-.00700	.50980	.01320
.201	6.150	.24350	.03700	.06180	.24620	.01062	.00160	-.00080	-.00700	.53980	.01375
.201	8.270	.34540	.04960	.06210	.34900	-.00067	.00190	-.00070	-.00800	.59610	.01413
.201	10.370	.44800	.06870	.06320	.45300	-.01314	.00180	-.00080	-.00700	.60990	.01495
.201	12.410	.55340	.09430	.06430	.56070	-.02688	.00190	-.00080	-.00800	.61880	.01613
.201	14.520	.66440	.12780	.06400	.67320	-.04298	.00250	-.00100	-.00900	.62590	.01816
.201	16.560	.77460	.17130	.06380	.79100	-.05764	.00270	-.00140	-.00600	.63230	.02037
.201	18.640	.87760	.22570	.04510	.91330	-.03827	.00260	.00100	-.00800	.64220	.02335
.201	20.710	.98340	.33290	.03610	1.03760	-.03651	.00260	-.00040	-.00300	.64750	.02652
.201	22.800	1.07030	.40440	.03490	1.14340	-.04201	.00530	-.00030	-.00200	.64900	.02986
.201	24.860	1.11950	.46840	.04310	1.21270	-.04581	.00510	-.00060	-.00800	.64720	.03428
GRADIENT	.04601	-.00088	.00040	.00040	.04649	-.00010	.00005	.00004	-.00034	-.11324	.00001

NR,701,0405 QRB B16C4D7F1J3W87E18V5X10

(RDN018) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT.    XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES    YREF = .0000 INCHES  
 BREF = 37.9349 INCHES    ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000    B-FLAP = -18.000  
 RUDDER = .000    RFLARE = .000  
 ELEVON = -10.000    AILRON = .000  
 NACX/L = .000    LIP = 4.000

RUN NO. 18/ 0    RN/L = 1.44    GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.200	-.32970	.04780	.10030	-.33230	.02343	.00070	-.00130	-.00300	.76830	.01049
.201	-2.120	-.23320	.03810	.10110	-.23450	.02940	.00060	-.00120	-.00300	.81470	.01078
.201	-1.090	-.18450	.03480	.10170	-.18510	.03130	.00060	-.00110	-.00300	.85710	.01051
.201	-.050	-.13800	.03230	.10250	-.13800	.03212	.00070	-.00110	-.00300	.92650	.01056
.201	.950	-.09160	.02990	.10290	-.09110	.03139	.00080	-.00100	-.00300	1.06550	.01134
.201	1.990	-.04460	.02900	.10370	-.04360	.03056	.00080	-.00110	-.00300	1.51380	.01082
.201	4.040	.04730	.02820	.10530	.04910	.02477	.00080	-.00090	-.00400	-.10870	.01160
.201	6.130	.14360	.03170	.10630	.14620	.01613	.00090	-.00130	-.00200	.39890	.01172
.201	8.180	.24070	.04000	.10750	.24390	.00537	.00120	-.00110	-.00400	.50170	.01172
.201	10.260	.34370	.05540	.10980	.34800	-.00670	.00120	-.00110	-.00400	.54670	.01355
.201	12.350	.44960	.07860	.11080	.45600	-.01343	.00150	-.00090	-.00600	.57270	.01393
.201	14.420	.55750	.10730	.11120	.56660	-.03503	.00200	-.00110	-.00600	.58950	.01638
.201	16.490	.66940	.14590	.11010	.68330	-.05021	.00300	-.00150	-.00700	.60210	.01832
.201	18.590	.78040	.22130	.09510	.81020	-.03910	.00280	-.00030	-.00700	.61780	.02088
.201	20.690	.88590	.29830	.08410	.93420	-.03398	.00290	-.00050	-.00500	.62750	.02342
.201	22.740	.97570	.36620	.08230	1.04140	-.03959	.00610	-.00030	-.00400	.63160	.02555
.201	24.780	1.03570	.42830	.08580	1.11980	-.04537	.00560	-.00110	-.00900	.63240	.03070
GRADIENT		.04577	-.00235	.00061	.01631	.00018	.00002	.00004	-.00009	-.04382	.00012

## TABULATED SOURCE FORCE DATA NAAL 701 OA16

NR,701,0405 ORB B16C507F1J3U87E18V5X10

(RDN019) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = 15.000  
 NACX/L = .000 LIP = 4.000

RUN NO. 19/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

YACH	V.FWA	CL	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-.11310	.00450	-.11670	.04526	.01200	.05250	-.05000	.67390	.01763
.201	-2.030	-.02420	.00360	-.02590	.04956	.01090	.05340	-.05400	.73730	.01755
.201	-.980	.02220	.00670	.02140	.03018	.01030	.05400	-.05500	.54720	.01795
.201	.050	.06780	.00800	.06780	.03055	.00960	.05430	-.05700	.61720	.01738
.201	1.070	.11320	.00960	.11420	.04901	.00890	.05480	-.05900	.62950	.01769
.201	2.100	.15810	.01050	.16000	.04716	.00830	.05520	-.06200	.63620	.01734
.201	3.140	.24200	.01300	.24650	.03970	.00710	.05570	-.06500	.64100	.01823
.201	4.140	.34000	.01240	.34540	.03145	.00610	.05650	-.07000	.64700	.01737
.201	5.220	.43860	.01090	.44610	.02024	.00340	.05890	-.07800	.65110	.01830
.201	6.280	.54340	.01090	.55400	.00890	.00310	.06050	-.08100	.65290	.01856
.201	7.370	.64900	.01200	.66350	-.00569	.00150	.06220	-.08700	.65340	.02012
.201	8.470	.75700	.01130	.77700	-.02034	-.00030	.06320	-.09200	.65470	.01998
.201	9.650	.86570	.00640	.89570	-.02569	.00190	.06530	-.10300	.65740	.02263
.201	10.700	.96180	.00290	1.01130	-.01228	.00060	.05360	-.07700	.66100	.02759
.201	11.780	1.06380	.00230	1.13420	-.00967	-.01010	.05280	-.07800	.66390	.03033
.201	12.800	1.12630	.00450	1.21690	-.01216	-.01120	.04540	-.07600	.66130	.03308
.201	13.800	1.14910	.01610	1.25710	-.02059	-.01330	.03963	-.05600	.65530	.02985
.201	14.800	1.14910	.00352	.04444	-.00065	-.00061	.00040	-.00185	-.00588	.00004

GRADIENT



DATE 13 DEC 73

TABULATED SOURCE FORCE DATA NAAL 701 0A16

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NR.701.0405 ORB B16C5D7F1J3W87E18V5X10

(RDN020) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .0000 B.FLAP = -18.0000  
 RUDDER = .0000 REFLARE = .0000  
 ELEVON = 7.5000 AILRON = 7.5000  
 NACX/L = .0000 LIP = 4.0000

## PARAMETRIC DATA

RUN NO. 20/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CLM	CN	CNF	CLN	CSL	CY	XCP/L	CAB
.201	-4.000	.04760	-.06640	.04480	.04137	.00630	.02780	-.03100	1.19180	.01865
.201	-1.940	.13880	-.06590	.13740	.04420	.00580	.02840	-.03400	.83220	.01881
.201	-.900	.18510	-.06510	.18440	.04459	.00520	.02860	-.03300	.78670	.01901
.201	.130	.22960	-.06460	.22970	.04419	.00480	.02870	-.03500	.76100	.01857
.201	1.160	.27580	-.06390	.27670	.04229	.00430	.02880	-.03500	.74280	.01888
.201	2.190	.31940	-.06280	.32120	.04019	.00380	.02850	-.03400	.73010	.01811
.201	4.240	.40780	-.06110	.41130	.03246	.00260	.02810	-.03600	.71330	.01672
.201	6.300	.50050	-.06100	.50590	.02201	.00160	.02740	-.03600	.70330	.01832
.201	8.390	.60730	-.06480	.61550	.01101	.00050	.02920	-.04100	.69760	.01894
.201	10.460	.71100	-.06400	.72260	-.00215	-.00050	.03030	-.04400	.69170	.01947
.201	12.530	.81420	-.06260	.83040	-.01686	-.00150	.03070	-.04500	.68700	.02026
.201	14.620	.91860	-.06210	.94070	-.03343	-.00200	.03020	-.04800	.68360	.02182
.201	16.700	1.03040	-.06520	1.06160	-.04750	-.00240	.02820	-.04800	.68200	.02528
.201	18.770	1.11260	-.08040	1.17110	-.01170	-.00500	.02570	-.04300	.68460	.03208
.201	20.830	1.21780	-.08950	1.29780	-.01409	-.00540	.02240	-.03900	.68470	.03606
.201	22.930	1.27710	-.07900	1.37990	-.01619	-.00390	.01500	-.02900	.68050	.03936
.201	24.990	1.27030	-.04620	1.39030	-.02405	-.00310	.01120	-.02300	.67190	.04589
GRADIENT		.04373	.00066	.04450	-.00106	-.00046	.00004	-.00051	-.04999	-.00003

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TABULATED SOURCE FORCE DATA NAAL 701 0A16

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NR.701.0405 ORB 816C507F1J3W87E18V5X10

(RDN021) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

PETA = .0000 B.FLAP = -18.0000  
 RUDDER = .0000 R.FLARE = .0000  
 ELEVON = -7.5000 AILRON = -7.0000  
 NACK/L = .0000 LIP = 4.0000

RUN NO. 21/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

ACH	ALPHA	CL	COF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.100	-.26520	.04480	.07230	-.26780	.02543	-.00720	-.02780	.01400	.75710	.01587
.201	-2.110	-.17030	.03670	.07340	-.17150	.03036	-.00660	-.02820	.01600	.81360	.01619
.201	-1.080	-.12360	.03500	.07340	-.12420	.03262	-.00650	-.02850	.01700	.87210	.01529
.201	-.030	-.07750	.03250	.07440	-.07760	.03247	-.00620	-.02890	.01900	1.00400	.01587
.201	.970	-.02970	.03190	.07470	-.02910	.03237	-.00600	-.02930	.02000	1.57900	.01547
.201	2.020	.01870	.03150	.07540	.01980	.03078	-.00560	-.02970	.02100	-.70480	.01549
.201	4.070	.11050	.03230	.07660	.11250	.02438	-.00510	-.03070	.02400	.41560	.01643
.201	5.180	.20680	.03840	.07690	.20970	.01585	-.00440	-.03190	.02700	.28220	.01553
.201	6.210	.30450	.04900	.07740	.30840	.00504	-.00350	-.03270	.02930	.56980	.01647
.201	10.240	.40480	.06710	.07970	.41030	-.00629	-.00300	-.03360	.03200	.59020	.01678
.201	12.360	.50790	.09060	.08150	.51530	-.02031	-.00230	-.03430	.03400	.60320	.01820
.201	14.470	.61850	.12260	.08270	.62950	-.03587	-.00120	-.03480	.03600	.61280	.01976
.201	16.530	.73150	.16370	.08130	.74740	-.05107	.00090	-.03630	.03700	.62090	.02157
.201	18.610	.83670	.21420	.06830	.86770	-.03993	.00330	-.03440	.03300	.63170	.02397
.201	20.690	.93770	.28130	.05670	.99070	-.03078	.00640	-.03070	.03000	.63940	.02723
.201	22.700	1.03130	.36120	.05330	1.10230	-.03875	.01150	-.03230	.02800	.64260	.03105
.201	24.820	1.08240	.45340	.06310	1.17270	-.04293	.01490	-.02780	.01700	.64060	.03678
GRADIENT		.04568	.00147	.00250	.04624	-.00208	.00025	-.00236	.00123	-.00805	.00082

DATE 19 DEC 73

TABULATED SOURCE FORCE DATA NAAL 701 0A15

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NR, 701.0405 ORB 816C5D7F1J3W87E18V5X10

(RDN022) ( 19 DEC 73 )

## REFERENCL DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 DREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B. FLAP = -18.000  
 RUDDER = .000 REFLARE = .000  
 ELEVON = .000 AILRON = -10.000  
 NACX/L = .000 LIP = 4.000

RUN NO. 22/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.080	-1.1370	.04450	.02380	-.15650	.03338	-.01130	-.04720	.03300	.71470	.02060
.201	-2.040	-.05950	.04090	.02340	-.06090	.03875	-.01020	-.04810	.03500	.79800	.02005
.201	.050	.03540	.04000	.02480	.03540	.03994	-.00920	-.04930	.03800	.40840	.02001
.201	1.060	.08130	.04070	.02520	.08210	.03915	-.00860	-.05000	.04000	.54970	.02035
.201	2.090	.12860	.04240	.02530	.13010	.03767	-.00810	-.05080	.04300	.59010	.01981
.201	4.130	.21950	.04670	.02680	.22230	.03078	-.00680	-.05230	.04600	.61660	.02073
.201	6.210	.31250	.05630	.02710	.31680	.02215	-.00520	-.05300	.04800	.62920	.02006
.201	8.290	.41090	.07090	.02860	.41690	.01087	-.00360	-.05430	.05200	.63530	.02015
.201	10.360	.51050	.09210	.02980	.51880	-.00130	-.00240	-.05550	.05600	.63930	.02081
.201	12.420	.61550	.12080	.03080	.62710	-.01452	-.00070	-.05700	.06000	.64230	.02109
.201	14.510	.72790	.15710	.03030	.74410	-.03041	.00220	-.05830	.06200	.64530	.02312
.201	16.590	.82950	.20170	.03020	.85260	-.04361	.00490	-.05820	.06100	.64720	.02397
.201	18.680	.91770	.28760	.02020	.96150	-.02162	.00950	-.04740	.04700	.65240	.02970
.201	20.780	1.02920	.36730	.00850	1.09250	-.02175	.01230	-.04840	.05000	.65720	.03397
.201	22.830	1.11700	.43900	.00790	1.19980	-.02893	.01820	-.04940	.04900	.65760	.03773
.201	24.880	1.14040	.49600	.02640	1.24330	-.02988	.01990	-.03890	.02800	.65230	.04214
GRADIENT		.04548	.00124	.00038	.04617	-.00024	.00054	-.00062	.00164	-.02093	.00000

## TABULATED SOURCE FORCE DATA NAAL 701 0A16

NR.701.0405 ORB B16C5D7F1J3W07E10V5X10

(RGN023) ( 19 DEC 73 )

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

CSTA =  
 RUDDER =  
 ELEVON =  
 NACX/L =

B.FLAP = -18.000  
 RFLARE = .000  
 AILRON = 10.000  
 LIP = 4.000

RUN NO. 23/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.060	-.11090	.04150	.00480	-.11360	.03353	.01010	.03630	-.03700	.67520	.01671
.201	-2.000	-.01470	.03850	.00450	-.01610	.03791	.00950	.03730	-.04100	.76060	.01658
.201	-.980	.03250	.03770	.00540	.03180	.03829	.00910	.03760	-.04100	.53970	.01734
.201	.070	.08130	.03890	.00560	.08130	.03877	.00860	.03840	-.04400	.63520	.01679
.201	1.080	.12470	.04020	.00590	.12540	.03788	.00810	.03880	-.04500	.64300	.01678
.201	2.120	.17240	.04230	.00630	.17380	.03587	.00760	.03930	-.04600	.64690	.01696
.201	4.170	.26360	.04850	.00830	.26640	.02920	.00650	.04020	-.04900	.64870	.01682
.201	6.250	.35560	.05780	.00970	.35970	.01871	.00530	.04080	-.05200	.65120	.01699
.201	8.310	.44930	.07400	.00970	.45530	.00824	.00430	.04120	-.05600	.65230	.01711
.201	10.370	.55320	.09620	.01050	.56140	-.00500	.00320	.04240	-.05900	.65320	.01836
.201	12.480	.65930	.12670	.01190	.67110	-.01891	.00230	.04310	-.06300	.65360	.01866
.201	14.550	.76740	.16360	.01220	.78390	-.03459	.00100	.04360	-.06700	.65430	.01996
.201	16.630	.87470	.22100	.00620	.90130	-.02747	.00050	.04610	-.07900	.65750	.02177
.201	18.700	.97250	.30030	-.00520	1.01740	-.02431	-.00480	.03850	-.05800	.66180	.02641
.201	20.840	1.07180	.38280	-.01340	1.13970	-.02431	-.00540	.03610	-.05400	.66420	.02928
.201	22.870	1.15180	.45720	-.01020	1.23810	-.02611	-.00580	.03050	-.04700	.66290	.03244
.201	24.880	1.13020	.51210	.00500	1.28610	-.03208	-.00740	.02850	-.04600	.65850	.03841
.201	GRADIENT	.04545	.04288	.00042	.04612	-.00050	-.00244	.00018	-.00143	-.00668	.00001

NR.701.0405 ORB B16C5D7F1J3W87E18V5X1D

(RDN024) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. WARP = 43.3974 INCHES  
 LREF = 19.2999 INCHES HREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 R.FLARE = .000  
 ELEWON = .000 AIRRON = 5.000  
 NACK/L = .000 LTP = 4.000

## PARAMETRIC DATA

RUN NO. 24/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	C	XCP/L	CAB
.201	-4.070	-.11530	.03500	.00680	-.11750	.02660	.00630	.01840	-.02000	.68080	.01553
.201	-1.980	-.01550	.03190	.00700	-.01660	.03130	.00590	.01900	-.02200	.81150	.01541
.201	-.990	.03040	.03110	.00750	.02980	.03160	.00580	.01940	-.02200	.56920	.01594
.201	.040	.07560	.03180	.00750	.07570	.03175	.00560	.01980	-.02400	.62530	.01563
.201	1.080	.12340	.03310	.00790	.12400	.03073	.00520	.02000	-.02400	.63690	.01586
.201	2.110	.17000	.03560	.00810	.17120	.02923	.00500	.02050	-.02500	.64290	.01545
.201	4.160	.26030	.04110	.00880	.26260	.02212	.00440	.02100	-.02700	.64790	.01593
.201	6.230	.35620	.05150	.00870	.35970	.01245	.00370	.02130	-.02900	.65130	.01563
.201	8.310	.45290	.06710	.00940	.45790	.00090	.00310	.02140	-.03000	.65260	.01614
.201	10.390	.55810	.08030	.01070	.56520	-.01197	.00260	.02190	-.03200	.65310	.01706
.201	12.450	.66080	.11890	.01220	.67090	-.02648	.00210	.02230	-.03500	.65340	.01829
.201	14.540	.76820	.15480	.01250	.78240	-.04316	.00190	.02240	-.03700	.65420	.02043
.201	16.620	.87990	.20280	.00920	.90110	-.05754	.00240	.02140	-.04000	.65630	.02233
.201	18.710	.98500	.29680	-.00740	1.02810	-.03497	.00030	.02260	-.03800	.66260	.02767
.201	20.790	1.08510	.37790	-.01720	1.14860	-.03190	-.00110	.01850	-.03000	.66530	.03053
.201	22.870	1.16540	.45300	-.01510	1.26320	-.03481	-.00030	.01440	-.02700	.66430	.03395
.201	24.910	1.19820	.51300	-.00090	1.30280	-.03957	-.00110	.01550	-.03100	.66020	.03896
GRADIENT		.04555	.00078	.00025	.04610	-.00054	-.00023	.00032	-.00083	-.00918	.00004

NR.701.0405 ORB B16C5D7F1J3487V5R5X10

(RDN025) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 25/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.080	-.12040	.03940	.01330	-.12290	.03074	.02190	-.01390	-.05300	.69900	.01683
.201	-2.010	-.02720	.03320	.01360	-.02840	.03425	.02240	-.01310	-.05300	.83170	.01735
.201	-.980	.01970	.03320	.01400	.01910	.03554	.02270	-.01290	-.05200	.39660	.01702
.201	.080	.06680	.03530	.01420	.06880	.03520	.02280	-.01230	-.05200	.58580	.01735
.201	1.090	.11600	.03680	.01400	.11670	.03458	.02290	-.01200	-.05200	.61670	.01691
.201	2.120	.16370	.03830	.01410	.16500	.03218	.02310	-.01160	-.05100	.62910	.01726
.201	4.130	.25780	.04430	.01410	.26040	.02532	.02330	-.01080	-.05100	.64050	.01731
.201	6.270	.33350	.05410	.01330	.35730	.01510	.02340	-.00980	-.05000	.64650	.01701
.201	8.330	.45260	.06980	.01330	.45790	.00342	.02350	-.00880	-.05000	.64950	.01748
.201	10.430	.55360	.09210	.01370	.56120	-.00939	.02350	-.00760	-.04900	.65110	.01839
.201	12.470	.66050	.12160	.01440	.67120	-.02402	.02360	-.00680	-.05000	.65220	.01940
.201	14.560	.76910	.15760	.01550	.78400	-.04085	.02390	-.00590	-.05000	.65280	.02101
.201	16.630	.87910	.20520	.01290	.90110	-.05505	.02340	-.00590	-.05300	.65480	.02262
.201	18.720	.98280	.29990	.01360	1.02670	-.03237	.02560	-.00160	-.05400	.66120	.02779
.201	20.800	1.08770	.38170	.01380	1.15230	-.02965	.02670	-.00230	-.05000	.66430	.03129
.201	22.870	1.17150	.45680	.01250	1.25600	-.03424	.02960	-.00500	-.04900	.66350	.03501
.201	24.920	1.23930	.51970	.00160	1.31540	-.03833	.03060	-.00050	-.05900	.65950	.04042
GRADIENT		.04595	.00063	.00210	.04656	-.00062	.00017	.00038	.00028	-.00095	.00004

NR.701.0405 ORB B16C5D7F1J3487V5R5X10

(RDN026) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 26/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.060	.09120	.01600	-.00060	.09120	.01586	.01250	-.00470	.20900	.66330	.02097
.201	-6.070	.06350	.02540	.00620	.08360	.02532	.01560	-.00610	.12100	.63320	.01798
.201	-4.020	.07430	.03260	.01180	.07430	.03253	.02070	-.00390	.03000	.60300	.01746
.201	-2.020	.07060	.03460	.01390	.07060	.03453	.02230	-.01140	-.01200	.58950	.01750
.201	.000	.06970	.03560	.01400	.06870	.03555	.02290	-.01250	-.05200	.58680	.01712
.201	1.990	.06740	.03370	.01180	.06740	.03358	.02430	-.01380	-.09300	.59680	.01806
.201	4.020	.06960	.03120	.00830	.06960	.03112	.02660	-.01590	-.13800	.61710	.01843
.201	6.040	.07220	.02360	.00310	.07230	.02353	.02620	-.01630	-.21900	.64410	.02086
.201	12.060	.07360	.01660	.00020	.07390	.01655	.02490	-.01450	-.29900	.65860	.02373
GRADIENT		-.00062	-.00016	-.00045	-.00062	-.00019	.00069	-.00072	-.02076	.00177	.00012

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TABULATED SOURCE FORCE DATA NIAL 701 QM16

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NR.701.0405 ORB 816C507F1J3487V5R5X10

(R0M027) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 27/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

MACH	BETA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCF/L	CAB
.201	-12.090	.32940	.03290	-.00010	.33100	.00277	.01040	.00330	-.21700	.66010	.02276
.201	-8.070	.31940	.04070	.00650	.32180	.01139	.01390	-.00010	.12600	.65260	.01958
.201	-4.010	.31010	.04640	.01200	.31300	.01801	.01960	-.00560	.03300	.64620	.01741
.201	-2.020	.30710	.04840	.01370	.31020	.02028	.02180	-.00800	-.00900	.64410	.01684
.201	.000	.30490	.04850	.01320	.30800	.02054	.02330	-.01020	-.05100	.64430	.01743
.201	1.990	.30540	.04760	.01170	.30840	.01959	.02450	-.01240	-.09100	.64630	.01736
.201	4.020	.30760	.04480	.00910	.31040	.01659	.02740	-.01510	-.13700	.64940	.01827
.201	6.030	.31070	.03910	.00390	.31220	.01070	.02940	-.01840	-.22100	.65540	.02023
.201	12.090	.31070	.03430	.00060	.31260	.00586	.02690	-.01870	-.30200	.65920	.02385
GRADIENT	-.00033	-.00020	-.00020	-.00039	-.00035	-.00018	.00091	-.00017	-.02103	.00043	.00011

## REFERENCE DATA

SREF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

NR.701.0405 ORB 816C507F1J3487V5R5X10

(R0M028) ( 23 JUN 73 )

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 28/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCF/L	CAB
.201	-12.100	.56710	.08010	.00130	.57220	-.02370	.00860	.01200	.22900	.65910	.02275
.201	-8.050	.56340	.08530	.00760	.56950	-.01789	.01270	.00680	.12800	.65520	.02004
.201	-4.020	.55750	.09070	.01260	.56470	-.01143	.01910	-.00030	.03300	.65190	.01856
.201	-2.020	.55610	.09260	.01340	.56360	-.00935	.02130	-.00400	-.00800	.65140	.01826
.201	.000	.55650	.09320	.01450	.56420	-.00875	.02330	-.00760	-.04900	.65070	.01840
.201	2.000	.55590	.09160	.01270	.56320	-.01030	.02460	-.01110	-.08800	.65180	.01874
.201	4.000	.55610	.09020	.01020	.56330	-.01166	.02690	-.01470	-.13000	.65340	.01831
.201	6.050	.55840	.08510	.00490	.56460	-.01716	.02910	-.02030	-.21700	.65680	.01986
.201	12.070	.55730	.08180	.00190	.56290	-.02012	.02830	-.02180	-.30600	.65870	.02287
GRADIENT	-.00015	-.00010	-.00010	-.00027	-.00016	-.00007	.00093	-.00019	-.02024	.00017	-.00000

NR. 701.0405 CR8 818C907F1J3487VSR5X10

(R0K029) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 56.17. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 27.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 B-FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 29/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.63180	.17150	-.00370	.84750	-.05856	.01000	.01860	.22300	.66240	.02497
.201	-6.060	.62940	.17700	.00400	.34690	-.05259	.01410	.01230	.12400	.61820	.02249
.201	-4.030	.62700	.18040	.01200	.84500	-.04672	.00350	.00330	.03200	.61480	.02065
.201	-2.030	.62670	.18090	.01360	.84480	-.04620	.02300	-.00110	-.01000	.61400	.02214
.201	.000	.62700	.18210	.01410	.84350	-.04706	.02480	-.00360	-.05000	.61400	.02198
.201	2.000	.62700	.18110	.01210	.84330	-.04803	.02670	-.01060	-.09100	.61480	.02249
.201	4.010	.62450	.17660	.01170	.84210	-.04977	.02690	-.01500	-.13000	.61490	.02170
.201	6.070	.62330	.17480	.00610	.83710	-.05226	.02730	-.02270	-.20500	.61730	.02097
.201	12.090	.62030	.17510	-.00020	.83690	-.05362	.02540	-.02690	-.29400	.66010	.02317
.201	GRADIENT	-.02023	-.00017	-.00012	-.00026	-.00010	.00096	-.00229	-.02014	.01005	.00010

NR. 701.0405 CR8 818C907F1J3487VSR5X10

(R0K030) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 56.17. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 27.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 16.000 B-FLAP = -6.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 30/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.96750	.27580	-.01450	1.00490	-.04871	.00990	.01520	.23000	.66530	.02777
.201	-6.060	.96640	.28690	-.00960	1.00740	-.03793	.01370	.00670	.15000	.66340	.02583
.201	-4.020	.97350	.29640	-.00410	1.01900	-.03207	.02010	.00390	.03500	.66140	.02506
.201	-2.010	.97930	.29990	-.00420	1.02360	-.03001	.02380	.00180	-.01200	.66140	.02677
.201	.000	.98210	.30160	-.00450	1.02700	-.02923	.02560	-.00100	-.05400	.66150	.02728
.201	2.000	.98310	.29520	-.00410	1.02560	-.03569	.02700	-.00640	-.09200	.66140	.02812
.201	4.010	.97810	.29000	-.00310	1.01950	-.03893	.03050	-.00950	-.13700	.66110	.02592
.201	6.060	.96630	.27960	-.00420	1.00490	-.04466	.02690	-.01530	-.21600	.66150	.02448
.201	12.100	.95560	.27740	-.01020	.99410	-.04333	.02690	-.01680	-.30800	.66360	.02632
.201	GRADIENT	.00045	-.00067	.00010	.00015	-.00097	.00120	-.00174	-.02093	-.00003	.00015



DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL T01

(R0N031) ( 23 JUN 73 )

NR.701.0405 ORB 816C507F1J3M87V5R5X10

PARAMETRIC DATA

BETA = .0000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AIRLON = .000  
 MACX/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 58.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2799 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 31/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-11820	.03470	.00680	-.12040	.02620	.01300	-.00690	-.03100	.68560	.01820
.201	-2.000	-.02490	.03120	.00910	-.02800	.03034	.01300	-.00620	-.03100	.78640	.01806
.201	-.990	.02350	.03080	.00940	.02300	.03121	.01290	-.00780	-.03000	.51300	.01630
.201	.020	.07020	.03110	.00930	.07030	.03139	.01260	-.00760	-.02900	.61220	.01608
.201	1.070	.11810	.03250	.00960	.11860	.03028	.01270	-.00730	-.02800	.63080	.01648
.201	2.120	.16630	.03390	.00980	.16750	.02767	.01270	-.00690	-.02800	.63860	.01671
.201	4.180	.26010	.04030	.01010	.26230	.02118	.01250	-.00640	-.02600	.64610	.01614
.201	6.220	.31650	.04360	.00940	.31980	.01080	.01220	-.00600	-.02600	.65060	.01646
.201	8.310	.43500	.06620	.00940	.45960	-.00029	.01220	-.00520	-.02600	.65260	.01681
.201	10.360	.66310	.11870	.01100	.62000	-.01274	.01210	-.00430	-.02600	.65290	.01761
.201	12.460	.77250	.15450	.01140	.78650	-.04466	.01220	-.00400	-.02500	.65360	.01866
.201	16.620	.88340	.21260	.00810	.90450	-.05844	.01390	-.00360	-.02500	.65470	.02131
.201	18.690	.98070	.29720	-.00860	1.02420	-.03264	.01400	-.00310	-.02900	.65670	.02288
.201	20.810	1.09240	.38030	-.01680	1.15610	-.03292	.01510	-.00210	-.02800	.66580	.03107
.201	22.860	1.17340	.45480	-.01670	1.25790	-.03685	.01750	-.00460	-.02500	.66470	.03489
.201	24.910	1.20140	.51330	-.00060	1.30580	-.04058	.01740	-.00010	-.03400	.66010	.03922
GRADIENT	.04596	.00068	.00068	.00018	.04650	-.00061	-.00006	.00031	.00065	-.0076	.00003

(R0N032) ( 23 JUN 73 )

NR.701.0405 ORB 816C507F1J3M87V5R5X10

PARAMETRIC DATA

ALPHA = .0000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AIRLON = .000  
 MACX/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 58.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2799 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 32/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.09260	.01310	-.00410	.09260	.01536	.00280	.00020	.23100	.67600	.02053
.201	-8.030	.06170	.02140	.00170	.06180	.02132	.00480	-.00040	.14600	.65240	.01773
.201	-4.010	.07610	.02890	.00750	.07620	.02866	.00950	-.00390	.05500	.62450	.01637
.201	-2.000	.07270	.03120	.00930	.07270	.03114	.01130	-.00390	.01400	.61400	.01635
.201	.000	.07070	.03120	.00940	.07080	.03114	.01260	-.00750	-.00700	.61190	.01656
.201	2.010	.07090	.03050	.00760	.07090	.03059	.01390	-.00900	-.06800	.62110	.01647
.201	4.090	.07060	.02780	.00520	.07060	.02773	.01570	-.01070	-.11200	.63320	.01750
.201	6.090	.07300	.02170	.00060	.07300	.02180	.01670	-.01180	-.19500	.65670	.01907
.201	12.090	.07410	.01420	-.00210	.07410	.01411	.01640	-.01090	-.27800	.67030	.02253
GRADIENT	-.00064	-.00014	-.00014	-.00031	-.00065	-.00015	.00078	-.00083	-.02071	.00122	.00008

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAL 701

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NR.701.0405 ORB B18C507F1J3AB7V5R5X10

(RDN733) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 56.47. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 33/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

MACH	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.040	.32870	.03020	-.00340	.32810	.00043	.00080	.00740	.23700	.60380	.02228
.201	-8.040	.31900	.03710	.00190	.32100	.00801	.00310	.00430	.15000	.63770	.01851
.201	-4.010	.30970	.04240	.00790	.31220	.01419	.00820	-.00100	.05370	.63000	.01579
.201	-1.990	.30670	.04410	.00930	.30930	.01517	.01060	-.00380	.01191	.64310	.01630
.201	.010	.30620	.04430	.00980	.30690	.01646	.01240	-.00620	-.02400	.64870	.01654
.201	2.020	.30390	.04340	.00770	.30650	.01572	.01370	-.00490	-.06700	.65090	.01668
.201	4.030	.30260	.04180	.00600	.30600	.01378	.01620	-.01100	-.11100	.65290	.01727
.201	6.060	.30640	.03580	.00120	.31030	.00776	.01900	-.01490	-.16300	.65880	.01974
.201	12.100	.30870	.03120	-.00280	.31020	.00311	.01890	-.01610	-.23400	.66300	.02306
GRADIENT		-.00053	-.00011	-.00027	-.00054	-.00006	.00095	-.00122	-.02101	.00030	.00007

## REFERENCE DATA

SREF = 4.4119 56.47. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 34/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

MACH	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.040	.56680	.07700	-.00150	.57120	-.02028	-.00110	.01460	.24800	.60990	.02272
.201	-8.040	.56280	.08230	.00380	.56830	-.02016	.00210	.00980	.15100	.63750	.01921
.201	-4.010	.55930	.08780	.00690	.56590	-.01456	.00780	.00280	.05900	.65430	.01768
.201	-1.990	.55700	.08880	.00990	.56390	-.01290	.01030	-.00080	.01700	.65380	.01798
.201	.010	.55620	.08910	.01070	.56320	-.01251	.01220	-.00440	-.02400	.65310	.01789
.201	2.020	.55300	.08420	.00920	.56180	-.01319	.01390	-.00790	-.06500	.65410	.01780
.201	4.030	.55510	.08640	.00730	.56160	-.01496	.01610	-.01160	-.11000	.65530	.01783
.201	6.070	.55930	.08210	.00210	.56100	-.01920	.01930	-.01780	-.19600	.65880	.01961
.201	12.120	.55980	.07870	-.00030	.55900	-.02223	.02070	-.02200	-.23900	.66030	.02300
GRADIENT		-.00052	-.00011	-.00019	-.00053	-.00005	.00101	-.00179	-.02031	.00012	.00001

NR.701.0405 ORB B18C507F1J3AB7V5R5X10

(RDN734) ( 23 JUN 75 )

NR.701.0405 ORB B16C50TF1J3A87V5R5X10

(RDN035) (23 JUN 73)

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 35/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.000	.82820	.16610	-.00780	.84300	-.06016	.00080	.02000	.24000	.66330	.02415
.201	-6.000	.82820	.17360	.00060	.84440	-.05498	.00400	.01400	.14500	.65970	.02199
.201	-4.000	.82320	.17630	.00840	.84220	-.05153	.00900	.00550	.09700	.65640	.02021
.201	-1.990	.82710	.17740	.00950	.84440	-.05104	.01170	.00990	.01500	.65810	.02213
.201	.010	.82630	.17840	.00850	.84390	-.04987	.01360	-.00380	-.02600	.65630	.02220
.201	2.020	.82660	.17740	.00820	.84390	-.05096	.01540	-.00840	-.06620	.65650	.02245
.201	4.030	.82440	.17530	.00860	.84110	-.05259	.01750	-.01290	-.10700	.65630	.02188
.201	6.070	.81880	.17110	.00440	.83470	-.05464	.01820	-.02130	-.18500	.65800	.02128
.201	12.110	.81820	.16990	-.00250	.83380	-.05560	.01860	-.02610	-.28000	.66110	.02296
GRADIENT		-.00010	-.00013	-.00002	-.00013	-.00010	.00103	-.00230	-.00238	.00001	.00018

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 36/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.000	.96970	.27430	-.01630	1.00640	-.05106	.00120	.01640	.24900	.66580	.02723
.201	-6.070	.97190	.28460	-.01230	1.01180	-.04208	.00330	.01030	.15100	.66430	.02557
.201	-4.010	.97830	.29300	-.00740	1.02050	-.03635	.00820	.00370	.05800	.66260	.02449
.201	-2.020	.98410	.29730	-.00890	1.02750	-.03417	.01170	.00290	.01300	.66310	.02665
.201	.000	.98310	.29900	-.00910	1.02700	-.03229	.01440	.00010	-.02900	.66310	.02673
.201	2.010	.98200	.29580	-.00820	1.02500	-.03507	.01670	-.00280	-.07100	.66280	.02766
.201	4.010	.98000	.28830	-.00660	1.02070	-.04139	.01920	-.00800	-.11100	.66230	.02569
.201	6.050	.96720	.27770	-.00630	1.00310	-.04789	.01970	-.01380	-.19500	.66220	.02440
.201	12.000	.95600	.27550	-.01260	.99380	-.04531	.01990	-.01600	-.29200	.66450	.02597
GRADIENT		.00006	-.00054	.00011	-.00011	-.00055	.00135	-.00165	-.02103	-.00004	.00017

NR. 701.0405 ORB 818C50771J3467X10

(R04037) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 56.FT. YMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES YMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = 4.000 B.FLAP = -18.000  
 ELEVON = .000 AIRRON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 37/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	YCP/L	CAB
.201	-4.070	-.11250	.02720	.00590	-.11420	.01912	-.01300	.00650	-.03500	.67850	.01533
.201	-2.000	-.01750	.02590	.00650	-.01810	.02324	-.01310	.00480	-.03600	.75370	.01584
.201	.060	.07650	.02500	.00650	.07650	.02495	-.01300	.00310	-.03600	.62910	.01520
.201	2.100	.17110	.02820	.00680	.17200	.02183	-.01270	.00140	-.03600	.64580	.01634
.201	4.190	.26650	.03650	.00710	.26840	.01874	-.01230	-.00010	-.03600	.65040	.01555
.201	6.240	.36100	.04700	.00770	.36390	.00743	-.01220	-.00180	-.03800	.65230	.01597
.201	8.310	.45900	.06480	.00780	.46360	.00225	-.01210	-.00380	-.03600	.65380	.01553
.201	10.400	.56280	.08840	.00880	.56950	-.01468	-.01210	-.00310	-.03500	.65440	.01633
.201	12.470	.66540	.11750	.00890	.67310	-.02904	-.01210	-.00670	-.03500	.65520	.01767
.201	14.560	.77180	.15540	.01010	.78610	-.04365	-.01220	-.00810	-.03500	.65530	.01843
.201	16.640	.88760	.20620	.00750	.90950	-.05663	-.01190	-.01050	-.03400	.65700	.02069
.201	18.710	.97980	.29370	-.00460	1.02220	-.03612	-.01020	-.00320	-.04300	.66160	.02495
.201	20.800	1.07270	.37510	-.01230	1.13600	-.03042	-.00860	-.00740	-.04100	.66380	.02651
.201	22.860	1.15460	.44740	-.01080	1.23770	-.03635	-.00570	-.01180	-.04100	.66310	.03117
.201	24.930	1.19870	.51520	-.00220	1.30420	-.03821	-.00510	-.01040	-.04700	.66060	.03597
.201	GRADIENT	.04590	.00109	.00013	.04653	-.00009	-.00009	-.00080	-.00010	-.00969	.00005

NR.701.0405 ORB B16C507F1J3612J87E18V9X10

(R0N036) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 5.000 AIRRON = .000  
 NACA/L = .000 LTP = 4.000

RUN NO. 36/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.030	-.00150	.05970	-.04580	-.00570	.05943	.00080	-.00120	-.00100	-2.19140	.01734
.201	-1.980	.06960	.05920	-.04500	.06750	.06228	.00070	-.00140	-.00200	.64460	.01692
.201	-.930	.13640	.05940	-.04430	.13540	.06157	.00070	-.00140	-.00100	.77910	.01763
.201	.060	.17870	.06120	-.04510	.17880	.06103	.00070	-.00140	-.00100	.75060	.01720
.201	1.090	.22490	.06330	-.04460	.22600	.05990	.00060	-.00150	-.00100	.73080	.01728
.201	2.140	.26860	.06680	-.04430	.27090	.05663	.00070	-.00160	-.00000	.71870	.01636
.201	4.210	.35880	.07450	-.04430	.36330	.04796	.00070	-.00150	.00000	.70380	.01691
.201	6.280	.44690	.08560	-.04500	.45350	.03616	.00060	-.00170	.00000	.69560	.01751
.201	8.350	.54690	.10510	-.04330	.55630	.02452	.00070	-.00180	.00000	.68790	.01751
.201	10.400	.64970	.13040	-.04290	.66260	.01083	.00070	-.00160	.00000	.68320	.01895
.201	12.500	.75480	.16260	-.04230	.77210	-.00476	.00080	-.00190	.00000	.67960	.02011
.201	14.560	.85050	.20220	-.04290	.88370	-.02074	.00150	-.00250	-.00100	.67740	.02156
.201	16.670	.97170	.25520	-.04620	1.00400	-.03445	.00290	-.00360	-.00300	.67650	.02363
.201	18.730	1.06200	.35720	-.06110	1.12050	-.00281	.00210	.00000	-.00200	.67950	.02952
.201	20.820	1.15560	.43400	-.06310	1.23440	-.00525	.00310	-.00220	-.00100	.67830	.03291
.201	22.870	1.21270	.50380	-.05560	1.31320	-.00720	.00480	-.00260	-.00300	.67520	.03701
.201	24.900	1.21670	.55320	-.03280	1.33660	-.01052	.00210	.00290	-.01200	.66880	.04306
GRADIENT		.04366	.00181	.00016	.04473	-.00139	-.00001	-.00004	.00019	.26059	-.00007

MR. 701.0405 008 B16C507F1J3612E407E18V5X10

(MON039) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 50.FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 5.000 AILRON = .000  
 NACKVL = .100 LIP = 4.000

RUN NO. 39/ 0 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CA3
.201	-4.010	.00100	.05980	-.04510	-.00310	.05966	.00100	-.00160	-.00300	2.00400	.01766
.201	-1.980	.06980	.05920	-.04450	.06770	.06220	.00090	-.00160	-.00200	.84200	.01766
.201	-.920	.13650	.05960	-.04460	.13550	.06197	.00090	-.00140	-.00200	.77810	.01795
.201	.100	.18120	.06140	-.04480	.18140	.06108	.00090	-.00150	-.00200	.77770	.01727
.201	1.150	.22790	.06370	-.04500	.22910	.05912	.00090	-.00160	-.00100	.73090	.01780
.201	2.160	.27200	.06640	-.04500	.27430	.05804	.00090	-.00160	-.00100	.71890	.01790
.201	4.200	.33020	.07460	-.04400	.36470	.04797	.00080	-.00180	-.00100	.70330	.01728
.201	6.290	.45280	.08670	-.04400	.45960	.03654	.00080	-.00190	-.00100	.69430	.01764
.201	8.390	.54970	.10580	-.04450	.55920	.02475	.00090	-.00160	-.00100	.68630	.01763
.201	10.410	.65380	.13100	-.04530	.66680	.01064	.00090	-.00180	-.00100	.68440	.01946
.201	12.540	.76240	.16530	-.04470	.78010	-.00418	.00090	-.00220	.00000	.68030	.02056
.201	14.590	.86690	.20630	-.04620	.89090	-.01884	.00040	-.00300	.00100	.67660	.02179
.201	16.670	.97400	.25630	-.04810	1.07650	-.03408	.00150	-.00420	.00100	.67710	.02179
.201	18.740	1.06160	.33120	-.06030	1.11820	-.00865	.00240	.00220	-.00300	.67930	.02894
.201	20.830	1.15100	.42860	-.06530	1.22820	-.00881	.00220	-.00080	.00100	.67900	.03183
.201	22.870	1.21900	.50120	-.05980	1.31800	-.01219	.00420	-.00240	.00000	.67620	.03662
.201	24.930	1.23100	.55630	-.03840	1.35080	-.01458	.00240	-.00260	-.00100	.67020	.04126
.201	GRADIENT	.04368	.07180	.00007	.04493	-.00144	-.00002	-.00002	.00026	-.13308	-.00003

DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-NAAL 701

(RND040) ( 23 JUN 75 )

NR.701.0405 ORB 816C507F1J3487E18V5X10

REFERENCE DATA

SDP = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 RFLARE = .000  
ELEVON = 9.000 AIRLON = .000  
MACVL = .100 LIP = 4.000

PARAMETRIC DATA

RUN NO. 40/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	CN	CAP	CLN	CSL	CY	XCP/L	CAB
.201	-4.020	-.00270	.03220	-.04480	-.00490	.03194	.00030	-.00160	.00000	-2.58420	.01653
.201	-1.940	.06800	.03210	-.04500	.08680	.03903	.00050	-.00160	.00000	.84620	.01601
.201	-.960	.13780	.03260	-.04520	.13720	.03494	.00050	-.00170	.00000	.77830	.01896
.201	.140	.16510	.03570	-.04510	.18520	.03520	.00020	-.00170	.00100	.74740	.01803
.201	1.170	.23270	.03800	-.04540	.23340	.03323	.00030	-.00180	.00200	.72970	.01890
.201	2.200	.27690	.04210	-.04500	.27990	.03141	.00040	-.00180	.00200	.71770	.01806
.201	4.240	.37170	.05100	-.04340	.37450	.02336	.00040	-.00200	.00200	.70160	.01870
.201	6.320	.46670	.06520	-.04450	.47100	.01331	.00040	-.00210	.00200	.69390	.01833
.201	8.390	.56380	.08480	-.04360	.57020	.00161	.00050	-.00200	.00200	.68740	.01900
.201	10.480	.66610	.11170	-.04410	.67530	-.01136	.00040	-.00200	.00200	.68340	.01939
.201	12.540	.77500	.14660	-.04470	.78840	-.02528	.00020	-.00240	.00300	.68030	.02092
.201	14.630	.86670	.19070	-.04630	.90590	-.04030	.00080	-.00270	.00200	.67830	.02247
.201	16.690	.99400	.24130	-.04920	1.02140	-.05436	.00190	-.00400	.00100	.67720	.02454
.201	18.780	1.08410	.33580	-.06040	1.13450	-.03120	.00190	.00020	.00000	.67910	.03004
.201	20.960	1.18430	.41860	-.06970	1.25570	-.03033	.00200	-.00170	.00300	.67990	.03310
.201	22.920	1.25900	.49640	-.06710	1.35290	-.03337	.00410	-.00450	.00500	.67780	.03657
.201	24.960	1.27790	.55570	-.04600	1.39310	-.03556	.00410	.00000	-.00400	.67180	.04088
	GRADIENT	.04550	.00231	.00012	.04611	-.00099	.00000	-.00005	.00032	.29746	.00002

NR.701.0405 ORB 816C507F1J3487V5X10

(RCHND41) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.7999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = .000 AILERON = .000  
 MACX/L = .100 LIP = .000

RUN NO. 41/ 0 RM/L = 1.44 GRADIENT INTERVAL = -5.00/ 1.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	VMX/L	CAB
.201	-4.840	-.11450	.03270	.00530	-.11650	.02452	.00030	-.00150	-.00300	.37650	.01556
.201	-1.970	-.01830	.02950	.00630	-.01930	.02887	.00030	-.00150	-.00100	.77690	.01515
.201	-.930	.02890	.02960	.00620	.02840	.03028	.00040	-.00130	-.00100	.58130	.01491
.201	.070	.07540	.02950	.00650	.07550	.02940	.00030	-.00140	-.00100	.62900	.01592
.201	1.100	.12170	.03140	.00660	.12230	.02902	.00040	-.00140	-.00100	.64050	.01506
.201	2.140	.17160	.03310	.00680	.17270	.02661	.00050	-.00140	.00000	.64570	.01589
.201	4.200	.26580	.03900	.00690	.26800	.01942	.00050	-.00180	.00000	.65070	.01634
.201	6.260	.36080	.04950	.00630	.36400	.00989	.00050	-.00170	.00000	.65370	.01566
.201	8.360	.46210	.06570	.00640	.46670	-.00228	.00060	-.00170	.00000	.65500	.01690
.201	10.430	.56310	.08970	.00630	.57010	-.01380	.00070	-.00140	-.00100	.65590	.01751
.201	12.500	.67280	.12050	.00650	.68300	-.02799	.00060	-.00130	-.00100	.65660	.01950
.201	14.560	.77910	.15980	.00600	.79400	-.04241	.00080	-.00190	.00000	.65720	.02027
.201	16.670	.89130	.20750	.00300	.91330	-.05692	.00210	-.00330	.00000	.65880	.02222
.201	18.730	.99220	.29540	-.01010	1.03450	-.03974	.00260	-.00010	-.00300	.66350	.02605
.201	20.820	1.09290	.37560	-.01890	1.13430	-.03936	.00270	-.00210	.00000	.66580	.02977
.201	22.900	1.16590	.44680	-.01810	1.24780	-.04219	.00420	-.00460	.00300	.66520	.03208
.201	24.930	1.21280	.51180	-.00530	1.31550	-.04718	.00440	-.00050	-.00300	.66140	.03829
GRADIENT		.04612	.00079	.00018	.04663	-.00061	.00003	-.00003	.00032	-.00706	.00011



DATE 19 DEC 73

TABULATED SOURCE FORCE DATA NAAL 701 0A16

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NR.701.0405 ORB B16C507F1J3M87V5X10

(RDN042) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = 4.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .100 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 42/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CLM	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.020	-1.1450	.02300	.02280	-.11630	.02085	.00460	-.00350	.66860	.01644
.201	-2.000	-.02100	.02660	.00340	-.02190	.02583	.00490	-.00400	.71670	.01634
.201	-.960	.02570	.02620	.00380	.02520	.02660	.00480	-.00440	.60560	.01631
.201	.040	.07250	.02640	.00410	.07250	.02636	.00500	-.00490	.63950	.01640
.201	1.060	.12000	.02610	.00380	.12050	.02586	.00520	-.00510	.64850	.01607
.201	2.100	.16620	.02950	.00430	.16720	.02339	.00520	-.00560	.65070	.01653
.201	4.160	.26120	.03660	.00450	.26320	.01756	.00560	-.00620	.65380	.01581
.201	6.220	.35630	.04580	.00530	.35920	.00690	.00570	-.00740	.65460	.01702
.201	8.310	.45580	.06340	.00460	.46020	-.00323	.00590	-.00820	.65630	.01652
.201	10.390	.56060	.08600	.00520	.56690	-.01655	.00590	-.00870	.65660	.01813
.201	12.460	.66370	.11580	.00570	.67310	-.03017	.00620	-.00960	.65690	.01831
.201	14.550	.77470	.15440	.00520	.78860	-.04523	.00670	-.01050	.65760	.02195
.201	16.640	.88720	.20340	.00290	.90830	-.05933	.00790	-.01220	.65880	.02196
.201	18.720	.98610	.26660	-.00790	1.02600	-.04508	.00930	-.00830	.66270	.02434
.201	20.770	1.07220	.36040	-.01160	1.13030	-.04340	.01000	-.00780	.66360	.02800
.201	22.890	1.14390	.43530	-.01190	1.22870	-.04541	.01210	-.00960	.66340	.03077
.201	24.900	1.19910	.50520	-.00390	1.30040	-.04680	.01320	-.00680	.66100	.03524
GRADIENT	.04491	.00019	.00019	.00020	.04638	-.00044	.00012	-.00034	-.00026	-.00006

NR.701.0405 ORB B16C507F1J3M87V5X10

(RDN043) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .100 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 43/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CLM	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.09590	.01280	-.00500	.09590	.01253	-.00710	.00460	.67870	.01952
.201	-6.180	.06760	.01960	-.00200	.06760	.01955	-.00690	.00530	.66830	.01655
.201	-4.000	.06020	.02660	.00310	.06020	.02631	-.00350	.00210	.64600	.01525
.201	-2.010	.07640	.02640	.00570	.07640	.02627	-.00150	.00030	.63560	.01542
.201	.000	.07610	.02900	.00630	.07620	.02892	.00050	-.00140	.63020	.01581
.201	2.020	.07350	.02640	.00540	.07350	.02856	.00300	-.00330	.63330	.01616
.201	4.010	.07390	.02620	.00320	.07390	.02616	.00510	-.00300	.64430	.01671
.201	6.070	.07460	.01990	-.00150	.07460	.01986	-.00730	-.00700	.66750	.01752
.201	12.110	.07790	.01250	-.00500	.07890	.01242	-.00890	-.02610	.68340	.02050
GRADIENT	-.00087	-.00014	-.00014	-.00001	-.00087	-.00003	-.00108	-.00089	-.00016	.00016

NR, 701, 0405 ORB 816C507F1J3487V5X10

(RDND44) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 44/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = .000 REFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .100 LIP = 4.000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	CP/L	CAB
.201	-12.080	.33000	.03030	-.00510	.33140	.00018	-.00080	.01010	.26000	.6560	.02135
.201	-8.090	.32350	.03640	-.00090	.32720	.00662	-.00940	.00840	.17600	.66100	.01678
.201	-4.020	.31710	.04110	.00430	.31960	.01216	-.00450	.00350	.08800	.65310	.01549
.201	-2.000	.31320	.04310	.00690	.31580	.01446	-.00170	.00070	.04300	.65210	.01505
.201	.000	.31330	.04360	.00630	.31670	.01498	.00050	-.00170	.00100	.65270	.01618
.201	2.070	.31250	.04270	.00560	.31510	.01414	.00290	-.00420	-.00410	.65350	.01681
.201	4.020	.31020	.04090	.00390	.31260	.01255	.00580	-.00680	-.00700	.65540	.01659
.201	6.060	.31000	.03510	-.00030	.31190	.00677	.00970	-.01140	-.01700	.66040	.01799
.201	12.090	.31410	.02940	-.00370	.31550	.00112	.01090	-.01300	-.26500	.66420	.02147
GRADIENT	-.00072	-.00004	-.00004	-.00010	-.00073	.00002	.00125	-.00127	-.00260	.00010	.00020

## REFERENCE DATA

SREF = 4.4119 50.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 45/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = .000 REFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .100 LIP = 4.000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.56970	.07650	-.00410	.57420	-.02728	-.01030	.01590	.26600	.66250	.02171
.201	-8.090	.56830	.08200	.00060	.57380	-.02164	-.00940	.01200	.17500	.65960	.01755
.201	-4.020	.56660	.08680	.00350	.57300	-.01662	-.00950	.00590	.08700	.65770	.01728
.201	-2.010	.56400	.08780	.00570	.57060	-.01522	-.00160	.00220	.04300	.65630	.01755
.201	.000	.56230	.08680	.00660	.56910	-.01390	.00070	-.00160	.00000	.65570	.01764
.201	2.070	.56200	.08870	.00580	.56960	-.01411	.00310	-.00530	-.04100	.65630	.01772
.201	4.020	.56160	.08630	.00450	.56820	-.01607	.00590	-.00900	-.08500	.65710	.01824
.201	6.060	.55910	.08130	.00070	.56460	-.02063	.01070	-.01560	-.17600	.65950	.01844
.201	12.100	.55760	.07730	-.00200	.56260	-.02431	.01330	-.01970	-.27300	.66130	.02121
GRADIENT	-.00054	.00001	.00001	.00010	-.00053	.00011	.00132	-.00146	-.00210	-.00006	.00010

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 46/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILERON = .000  
 NACK/L = .100 LIP = 4.000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.02780	.16680	-.00810	.84220	-.06120	-.00830	.02110	.25800	.66340	.02248
.201	-8.090	.03100	.17110	-.00250	.84650	-.05793	-.00990	.01520	.17100	.66100	.01090
.201	-4.020	.03520	.17800	.00190	.85240	-.05244	-.00480	.00670	.08600	.65910	.02007
.201	-2.000	.03750	.18040	.00350	.85520	-.05094	-.00110	.00190	.04400	.65840	.02133
.201	.000	.03620	.18230	.00450	.85640	-.04922	.00140	-.00290	.00300	.65810	.02146
.201	2.010	.03460	.18010	.00530	.85230	-.04930	.00420	-.00730	-.04000	.65770	.02179
.201	4.010	.02820	.17630	.00500	.84510	-.05230	.00680	-.01170	-.08300	.65780	.02121
.201	6.090	.02410	.17140	.00150	.83990	-.05584	.01050	-.02030	-.16700	.65930	.02047
.201	8.090	.02250	.16930	-.00580	.83780	-.05754	.01160	-.02500	-.26200	.66240	.02165
.201	12.090	.02084	-.00018	.00040	-.00087	.00005	.00142	-.00229	-.02103	-.00016	.00014

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 47/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

ALPHA = 18.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILERON = .000  
 NACK/L = .100 LIP = 4.000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.07310	.27390	-.01930	1.07950	-.05262	-.00830	.01760	.26600	.66680	.02543
.201	-8.090	.06150	.28470	-.01740	1.02100	-.04542	-.00950	.01360	.17500	.66610	.02481
.201	-4.020	.06480	.29250	-.01110	1.02660	-.03915	-.00390	.00700	.08600	.66390	.02410
.201	.000	.06910	.29430	-.00980	1.03300	-.03947	-.00090	.00530	.03900	.66340	.02641
.201	.000	.06960	.29630	-.00880	1.03230	-.03717	.00210	.00390	-.00200	.66300	.02605
.201	2.010	.06790	.28970	-.00720	1.02860	-.04289	.00450	-.00400	-.04200	.66250	.02600
.201	4.020	.06510	.28330	-.00700	1.02450	-.04601	.00850	-.00730	-.08800	.66240	.02496
.201	6.090	.05990	.27820	-.01150	1.01360	-.04960	.01180	-.01390	-.17800	.66410	.02532
.201	8.090	.06400	.27490	-.01780	1.00130	-.04876	.01480	-.01680	-.27900	.66640	.02511
.201	12.090	.06012	-.00095	.00054	-.00043	-.00086	.00170	-.00149	-.02134	-.00019	.00007



DATE 19 DEC 75

TABULATED SOURCE FORCE DATA NAAL 701 0A16

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MR. 701.0405 OEB 816C50771J34P7E18V5X10

(RDM348) (19 DEC 75)

REFERENCE DATA

SACP = 4.4119 53.171 XMRP = 45.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
PREF = 27.5349 INCHES ZMRP = 16.2000 INCHES  
SCALE = 1.000 SCALE

PARAMETRIC DATA

BETA = .0000 B.FLAP = .0000  
RUDDER = .0000 P.FLAP = .0000  
ELEVON = -5.0000 AILERON = .0000  
WAPX/L = .0000 LIP = 4.0000

RUN NO. 48/0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

W/CH	ALPHA	CL	COF	CLM	CN	CAF	CLN	CSL	CY	ACP/L	CAB
.201	4.140	1.23310	.03060	.05830	-.23330	.02168	.00000	-.00120	-.00120	.74830	.00242
.201	2.060	1.13710	.03230	.05870	-.11020	.02727	.00050	-.00120	-.00120	.71210	.01279
.201	1.110	1.04790	.02970	.05940	-.02940	.02418	.00130	-.00110	-.00110	.60190	.01235
.201	0.010	1.04160	.02990	.05970	-.04160	.02851	.00050	-.00110	-.00120	1.17430	.01016
.201	1.020	1.02160	.02790	.06070	.00710	.02781	.00090	-.00110	-.00110	2.53620	.01255
.201	2.060	1.01390	.02790	.06070	.05590	.02950	.00060	-.00110	-.00110	.27270	.01373
.201	4.110	1.00000	.03160	.06040	.15070	.02084	.00060	-.00120	-.00120	.51610	.01355
.201	6.190	1.00000	.03780	.06080	.24870	.01103	.00060	-.00120	-.00120	.6210	.01357
.201	8.240	1.00000	.05110	.06090	.34880	.00790	.00070	-.00120	-.00120	.63720	.01312
.201	10.350	1.00000	.06030	.06130	.45580	-.01287	.00060	-.00120	-.00120	.61170	.01315
.201	12.410	1.00000	.06030	.06130	.56730	-.02584	.00060	-.00120	-.00120	.62110	.01658
.201	14.480	1.00000	.06030	.06140	.68050	-.04076	.00060	-.00120	-.00120	.62750	.01319
.201	16.580	1.00000	.06030	.06140	.79230	-.05525	.00120	-.00120	-.00120	.63350	.01312
.201	18.650	1.00000	.06030	.06140	.91420	-.07189	.00120	-.00120	-.00120	.64200	.02371
.201	20.730	1.00000	.06030	.06140	1.03240	-.08124	.00190	-.00120	-.00120	.64620	.02672
.201	22.800	1.00000	.06030	.06140	1.14080	-.094612	.00320	-.00120	-.00120	.64880	.02359
.201	24.950	1.13280	.07270	.06140	1.22650	-.104934	.00590	-.00120	-.00120	.64820	.03351
GRADIENT					4602	-.10015	-.00000	.00000	.00000	-.12	.00000

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL 701

NR. 701.0405 ORB 816C507F1J3487E16V3110

(RDM049) ( 23 JUN 73 )

PARAMETRIC DATA

BETA = .005 B-FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -10.000 AILRON = .000  
 MAC/L = .100 LIP = 4.000

REFERENCE DATA

SECF = 4.4119 SA-FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 18.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 49/ 0 RNUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	QN	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-4.180	-.33370	.04770	.10320	-.33630	.02321	.00070	-.00060	-.00300	.77010	.01006
.201	-2.130	-.73800	.05820	.10270	-.23930	.02926	.00060	-.00070	-.00200	.81400	.01015
.201	-1.100	-.18910	.03460	.10310	-.18970	.03096	.00060	-.00050	-.00200	.85510	.01028
.201	-.050	-.14150	.03150	.10340	-.14160	.03130	.00060	-.00050	-.00200	.92220	.01066
.201	1.000	-.09110	.02930	.10340	-.09060	.03091	.00070	-.00040	-.00300	1.06940	.01078
.201	2.000	-.04490	.02650	.10410	-.04390	.03024	.00070	-.00030	-.00300	1.30960	.01039
.201	4.060	.05740	.02820	.10500	.05230	.02449	.00070	-.00050	-.00300	-.06040	.01095
.201	6.180	.23050	.03230	.07060	.23480	.02710	.00110	-.01710	.01100	-.55160	.01356
.201	6.280	.32430	.06330	.07430	.33000	.01588	.00160	-.01640	.01100	.57910	.01316
.201	10.320	.41750	.07990	.07850	.42510	.02378	.00180	-.01550	.01100	.59370	.01394
.201	12.390	.51530	.10400	.06330	.52560	-.00696	.00290	-.01250	.01000	.60300	.01487
.201	14.470	.61910	.13520	.08730	.63320	-.02390	.00290	-.01250	.01000	.61050	.01608
.201	16.540	.71610	.16320	.08620	.73860	-.02831	.00320	-.00750	-.00100	.61810	.01856
.201	18.600	.80280	.24420	.08430	.83870	-.02467	.00610	-.00370	-.00100	.62390	.02035
.201	20.670	.88170	.50460	.08640	.93250	-.02616	.00490	-.00070	.00000	.62670	.02262
.201	22.750	.96840	.36960	.08530	1.03600	-.03377	.00560	.00010	-.00200	.63040	.02544
.201	24.820	1.02600	.43210	.09060	1.11440	-.03945	.00610	.00140	-.00700	.63080	.02997
GRADIENT		.04656	-.00237	.00024	.04710	.00015	.00001	.00003	-.00007	-.03964	.00010

DATE BY SEP 73

TABULATED SOURCE FORCE DATA-NAL T01

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NR. T01.0403 CR8 B16C307F1J348TE18V5X10

(R00050) (25 10) 13 )

## REFERENCE DATA

SHOT = 4.4119 SE. FT. 1000P = 43.2974 INCHES  
 LIFT = 19.2999 INCHES 1000P = .0000 INCHES  
 SHOT = 37.9349 INCHES 2000P = 14.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

BETA = .000 B. FLAP = .10.00  
 RUDER = .000 RFLAP = .000  
 ELEVON = .000 AILERON = .10.000  
 MACYL = .100 LIP = 4.000

RUN NO. 50/ 0 RUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WON	ALPHA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.500	-.09270	.03290	-.00310	-.09620	.04579	.01350	.05420	-.03400	.64820	.01687
.201	-1.900	.00070	-.09060	-.00280	-.00090	.09078	.01250	.05330	-.03800	.13360	.01832
.201	-.970	.04600	-.09060	-.00190	.04510	.03163	.01180	.05510	-.06100	.07570	.01633
.201	.060	.09000	.03190	-.00100	.09200	.03141	.01130	.05660	-.06330	.66420	.01537
.201	1.060	.13740	.03270	.00070	.13630	.03003	.01050	.05710	-.06300	.66000	.01674
.201	2.110	.18060	.05470	.00120	.18250	.04797	.00980	.05750	-.06670	.65750	.01851
.201	4.160	.27110	.06110	.00410	.27180	.04141	.00830	.05820	-.07070	.65240	.01876
.201	6.230	.36280	.07150	.00410	.36850	.03135	.00690	.05960	-.07400	.65590	.01698
.201	8.300	.45200	.08620	.00360	.46690	.02093	.00550	.06110	-.07800	.65710	.01729
.201	10.420	.53740	.11370	.00190	.57980	.00879	.00360	.06420	-.08270	.65870	.01817
.201	12.470	.66930	.14130	.00270	.68450	-.00461	.00180	.06520	-.09100	.65850	.01940
.201	14.340	.77630	.16270	.00210	.79720	-.01885	-.00050	.06510	-.09300	.65900	.02014
.201	16.620	.88070	.23660	.00100	.91160	-.02520	.00140	.06640	-.10300	.65930	.02110
.201	18.710	.96560	.30680	-.00190	1.01360	-.01735	-.00750	.05700	-.08100	.66030	.02531
.201	20.830	1.06270	.39780	-.00910	1.13110	-.01570	-.01040	.03310	-.07300	.66290	.02863
.201	22.840	1.12990	.45560	-.02500	1.21810	-.01879	-.01160	.04540	-.06500	.66090	.03217
.201	24.990	1.16150	.51060	-.04410	1.26890	-.02579	-.01350	.04020	-.05500	.65590	.03670
.201	124.840	.58240	.32770	-2.60700	3.27670	.32767	-.01380	.44190	-2.32900	.76380	.09641
GRADIENT		.04592	.07372	.00790	.04480	-.02057	-.00264	.00150	-.00195	.04954	.00002

DATE 27 SEP 73

ISOLATED SOURCE FORCE DATA-MAL T01

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NR. T01.0403 URB 816C507F1J3487E18V3110

(R0ND31) ( 23 JUN 73 )

## REFERENCE DATA

SHEP = 4.419 SQ. FT. 106P = 43.3974 INCHES  
 LREF = 19.2399 INCHES 116P = .0000 INCHES  
 BREF = 37.5349 INCHES 206P = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

BETA = .000 0. FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 7.500 AILRON = 7.500  
 NACA/L = .100 LIP = 4.000

RUN NO. 91/ 0 RV/L = 1.44 GRADIENT INTERVAL 7 -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.000	.03010	.03680	-.06770	.04720	.04196	.00380	.02810	-.02700	1.17440	.01900
.201	-1.910	.14300	.04060	-.06690	.14150	.04538	.00320	.02880	-.02900	.82960	.01878
.201	-.860	.18970	.04270	-.06650	.16900	.04551	.00480	.02910	-.03100	.78620	.01868
.201	1.40	.23370	.04520	-.06570	.23380	.04457	.00440	.02910	-.03200	.76090	.01874
.201	1.150	.27780	.04880	-.06540	.27870	.04323	.00400	.02900	-.03200	.74420	.01842
.201	2.200	.32280	.05250	-.06390	.32450	.04024	.00360	.02910	-.03400	.73070	.01873
.201	4.240	.41180	.06390	-.06210	.41520	.03326	.00250	.02840	-.03400	.71370	.01823
.201	5.340	.51110	.07520	-.06410	.51680	.02223	.00160	.02850	-.03500	.70450	.01871
.201	8.390	.61640	.10230	-.06670	.62480	.01115	.00040	.02980	-.03900	.69830	.01914
.201	10.480	.72180	.13180	-.06810	.73370	-.00149	-.00090	.03140	-.04300	.69330	.01998
.201	12.530	.82860	.16820	-.06830	.84540	-.01571	-.00270	.03140	-.04500	.68900	.02135
.201	14.610	.93340	.21250	-.06930	.95680	-.02997	-.00310	.03040	-.04500	.68590	.02309
.201	16.700	1.03990	.26500	-.06990	1.07180	-.04492	-.00320	.02770	-.04500	.68340	.02504
.201	18.800	1.11820	.36150	-.07740	1.17500	-.01823	-.00350	.02550	-.04900	.68360	.03050
.201	20.910	1.21590	.44420	-.08470	1.29240	-.01657	-.00660	.02250	-.04900	.68350	.03428
.201	22.930	1.28330	.52070	-.07970	1.38470	-.02042	-.00550	.01600	-.02400	.68060	.03820
.201	24.930	1.29580	.57470	-.05410	1.41730	-.02569	-.00420	.01210	-.02000	.67360	.04389
.201	GRADIENT	.04384	.00303	.01668	.04462	-.00110	-.00040	.00005	-.00090	-.04839	-.00008

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

(R0ND52) ( 23 JUN 73 )

NR.701.0405 ORB 816C507E1J3W87E18V5X10

REFERENCE DATA

SREF = 4.119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = 10.000  
RUDDER = .000 RFLARE = .000  
ELEVON = -7.500 ALIRON = 1.500  
NACX/L = .10X LIP = 4.000

PARAMETRIC DATA

RUN NO. 52/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	CO/L	C/D
.201	-4.170	-26700	.04560	.07230	-26960	.02607	-.00780	-.02760	.01900	.01630	.01445
.201	-2.100	-17190	.03810	.07260	-17320	.03177	-.00740	-.02810	.02100	.01040	.01430
.201	-1.060	-12580	.03520	.07340	-12440	.03291	-.00710	-.00850	.02200	.01150	.01433
.201	-.030	-.07680	.03340	.07430	-.07680	.03335	-.00690	-.02880	.02200	1.00710	.01451
.201	.980	-.03080	.03230	.07430	-.03030	.03280	-.00650	-.02910	.02300	1.54060	.01420
.201	2.000	.01670	.03200	.07440	.01780	.03140	-.00620	-.02960	.02500	-.03380	.01456
.201	4.070	.11220	.03420	.07530	.11430	.02608	-.00520	-.03190	.01100	.02350	.01440
.201	6.170	.20130	.03890	.07590	.21120	.01631	-.00520	-.03190	.01100	.03100	.01487
.201	8.260	.30790	.05040	.07770	.31190	.00560	-.00400	-.03360	.03600	.07060	.01510
.201	10.290	.40630	.06790	.07900	.41240	-.00584	-.00340	-.03460	.03900	.09120	.01565
.201	12.360	.51160	.09340	.08000	.51970	-.01832	-.00270	-.03570	.04300	.06470	.01671
.201	14.480	.62480	.12720	.08030	.63670	-.03312	-.00040	-.03730	.04500	.01470	.01836
.201	16.510	.73440	.14350	.07780	.75200	-.04734	-.00040	-.03730	.04500	.02280	.02058
.201	18.600	.84050	.20210	.06720	.87580	-.03879	.00210	-.03480	.04100	.03230	.02743
.201	20.710	.93470	.31570	.06140	.94590	-.03531	.00480	-.03120	.03600	.03790	.02658
.201	22.770	1.03130	.38840	.05430	1.10160	-.04020	.00920	-.03220	.03700	.04220	.02812
.201	24.890	1.09630	.45980	.05720	1.18970	-.04366	.01310	-.03000	.02600	.04270	.03368
.201	89.670	-2.65260	.32770	-2.21210	3.27670	.32767	-.44690	.41670	-1.03800	.66910	-.32767
GRADIENT		.04600	-.00141	.00058	.04657	-.00002	.00025	-.02416	.00113	-.09795	.00000



DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1J3W87E18V5X10

(RCH053) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = -10.000  
 NACKVL = .100 LIP = 4.000

RUN NO. 53/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.0770	.04040	.00240	-1.1030	.03265	-.01190	-.03900	.05600	.66810	.01869
.201	-2.020	-.01410	.03760	.00280	-.01590	.03704	-.01220	-.04020	.06500	.72590	.01843
.201	-.960	.03520	.03760	.00300	.03450	.03816	-.01180	-.04070	.06600	.62870	.01844
.201	.090	.08180	.03650	.00350	.08190	.03840	-.01160	-.04130	.06900	.64450	.01787
.201	1.090	.12960	.03960	.00370	.13040	.03710	-.01170	-.04220	.07600	.64970	.01822
.201	2.120	.17560	.04150	.00390	.17700	.03495	-.01060	-.04290	.07300	.63200	.01837
.201	4.180	.26720	.04780	.00580	.27000	.02815	-.00900	-.04380	.07200	.55220	.01826
.201	6.260	.36430	.05880	.00590	.36850	.01866	-.00450	-.04420	.04500	.65430	.01819
.201	8.360	.46170	.07480	.00640	.46760	.00585	-.00320	-.04480	.04700	.65500	.01863
.201	10.400	.56690	.09870	.00610	.57540	-.00531	-.00220	-.04600	.05000	.65610	.01923
.201	12.480	.67490	.13030	.00640	.68670	-.01864	-.00100	-.04710	.05300	.65660	.01995
.201	14.590	.78610	.17030	.00470	.80370	-.03326	.00090	-.04850	.05600	.65780	.02177
.201	16.630	.89450	.21740	.00270	.91930	-.04787	.00330	-.04920	.05700	.65890	.02441
.201	18.720	.98010	.30390	-.00670	1.02570	-.02684	.00600	-.03980	.04700	.66230	.02831
.201	20.790	1.07750	.37920	-.01310	1.14190	-.02810	.00880	-.03820	.04800	.66410	.03165
.201	22.870	1.16980	.45820	-.01790	1.25590	-.03256	.01390	-.03990	.04800	.66510	.03556
.201	24.920	1.20890	.52230	-.00190	1.31590	-.03555	.01690	-.03180	.02500	.66030	.04054
.201	GRADIENT	.04554	.00091	.00038	.04621	-.00754	.00034	-.00060	.00208	-.00440	-.00007

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TABULATED SOURCE FORCE DATA-NAL 701

NR.701.0405 ORB B16C507F1J3W67E10V5X10

(R2N034) ( 25 JUN 73 )

REFERENCE DATA

SAP = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 B-FLAP = -10.000  
 RUDDER = .000 RFLURE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .100 LIP = .000

RUN NO. 54/ 0 RVL = 1.44 GRACIENT INTERVAL = -5.00/ 5.00

MAC	ALPHA	CL	CDP	CLM	ON	CAF	QLN	CSL	CT	YCP/L	CAB
.201	-4.070	-1.0720	.04290	.00460	-.10990	.03516	.00930	.03560	-.03390	.97500	.01562
.201	-2.010	-.01210	.03970	.00460	-.01350	.03921	.00890	.03730	-.03700	.93700	.01972
.201	-.970	.03610	.03960	.00320	.03340	.04016	.00820	.03790	-.04000	.90690	.01573
.201	.060	.08390	.04000	.00340	.08390	.03986	.00770	.03840	-.04100	.83670	.01535
.201	1.060	.12970	.04130	.00360	.12990	.03885	.00740	.03790	-.04200	.84430	.01611
.201	2.110	.17760	.04360	.00610	.17710	.03703	.00690	.03940	-.04400	.84790	.01589
.201	4.200	.26630	.04950	.00780	.26930	.02987	.00600	.04000	-.04600	.84940	.01012
.201	6.290	.36110	.05530	.00820	.36540	.01973	.00510	.04080	-.05100	.85180	.01656
.201	8.280	.45630	.07540	.00790	.46240	.00963	.00470	.04120	-.05300	.85370	.01667
.201	10.400	.56380	.09660	.00660	.57290	-.00394	.00270	.04300	-.05800	.85580	.01773
.201	12.460	.67100	.11950	.00670	.68390	-.01742	.00160	.04390	-.06100	.85640	.01879
.201	14.570	.76190	.16940	.00610	.79940	-.03281	.00010	.04380	-.06400	.85720	.02036
.201	16.610	.86680	.22610	.00040	.91630	-.03758	.00390	.04590	-.07500	.85380	.02278
.201	18.700	.98760	.30140	-.00000	1.02590	-.02909	-.00360	.05100	-.08100	.86170	.02319
.201	20.770	1.07600	.37780	-.01090	1.14000	-.02690	-.00640	.03510	-.09300	.86340	.02788
.201	22.860	1.15100	.45200	-.00920	1.23620	-.03074	-.00690	.03120	-.04670	.86280	.03174
.201	24.900	1.19720	.51540	-.00190	1.30290	-.03669	-.00680	.02740	-.04970	.85940	.03267
.201	GRACIENT	.04326	.00783	.00137	.04595	-.00762	-.00040	.00044	-.00117	-.00794	.06005

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TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 ORB 816C507F1J3467E18V5X10

(R0N055) ( 23 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2959 INCHES XARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405 SCALE

DETA = .000 B.FLAP = -18.000  
RUDER = .000 RFLARE = .000  
ELEVON = .000 AILRON = 5.000  
NACA/L = .100 LIP = 4.000

PARAMETRIC DATA

RUN NO. 55/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-.11680	.03570	.00760	-.11910	.02730	.00550	.01840	-.01700	.68300	.01481
.201	-2.000	-.02050	.03290	.00770	-.02180	.03211	.00310	.01890	-.01700	.78810	.01467
.201	-.960	.02750	.03220	.00780	.02700	.03268	.00510	.01930	-.01900	.55310	.01486
.201	.050	.07620	.03270	.00810	.07630	.03259	.00460	.01960	-.02000	.62160	.01482
.201	1.060	.12160	.03410	.00850	.12220	.03179	.00450	.01990	-.02000	.63480	.01484
.201	2.150	.17130	.03410	.00870	.17250	.02910	.00440	.02050	-.02300	.64180	.01527
.201	4.170	.26260	.04150	.00910	.26490	.02229	.00370	.02100	-.02300	.64760	.01540
.201	6.250	.35940	.05180	.00840	.36290	.01233	.00330	.02100	-.02800	.65160	.01536
.201	8.330	.45890	.06810	.00810	.46400	.00085	.00260	.02120	-.02800	.65360	.01586
.201	10.400	.56350	.09160	.00780	.57080	-.01168	.00180	.02160	-.03000	.65500	.01696
.201	12.480	.67030	.12190	.00770	.68080	-.02585	.00110	.02200	-.03200	.65590	.01915
.201	14.570	.77840	.16020	.00680	.79370	-.04093	.00040	.02190	-.03400	.65680	.02106
.201	16.650	.89180	.20940	.00340	.91440	-.05503	.00090	.02030	-.03500	.65680	.02295
.201	18.700	.98600	.29580	-.00330	1.02880	-.03600	-.00080	.02120	-.03200	.66280	.02640
.201	20.790	1.06600	.37410	-.01560	1.14800	-.03580	-.00240	.01870	-.02700	.66480	.02961
.201	22.880	1.16740	.45040	-.01610	1.25070	-.03911	-.00150	.01460	-.02300	.66460	.03327
.201	24.900	1.21480	.51710	-.00560	1.31960	-.04267	-.00110	.01350	-.02500	.66150	.03638
GRADIENT		.04810	.07070	.00020	.04666	-.00062	-.00021	.00026	-.00086	-.00820	.00008

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1J3M8TVSR5X1D

(R04056) ( 23 JUN 73 )

## REFERENCE DATA

REF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
 UREF = 19.2999 INCHES YMRP = .0000 INCHES  
 DREF = 37.9349 INCHES YRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = -15.000 REFLAP = .000  
 ELEVON = .000 AIRLON = .000  
 MACXL = .100 LIP = 4.000

RUN NO. 56/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CUB
.201	-4.070	-.11820	.04030	.01190	-.12070	.03179	.02030	-.01260	-.05800	.69440	.01542
.201	-2.010	-.02280	.03750	.01180	-.02390	.03668	.02110	-.01190	-.06000	.83690	.01536
.201	-.940	.02600	.03690	.01180	.02340	.03691	.02150	-.01190	-.06100	.49310	.01621
.201	.050	.07180	.03720	.01200	.07180	.03711	.02160	-.01100	-.06100	.59980	.01603
.201	1.100	.11920	.03770	.01190	.11990	.03536	.02170	-.01090	-.06000	.62420	.01624
.201	2.120	.16680	.04020	.01180	.16820	.03399	.02200	-.01010	-.06000	.63480	.01604
.201	4.190	.26410	.04620	.01200	.26670	.02677	.02240	-.00990	-.05800	.64370	.01647
.201	6.240	.36030	.05660	.01080	.36430	.01706	.02240	-.00900	-.05800	.64930	.01630
.201	8.360	.46080	.07300	.01030	.46640	.00516	.02270	-.00820	-.05900	.65200	.01642
.201	10.390	.56210	.09530	.01050	.57000	-.00767	.02270	-.00710	-.05900	.65350	.01787
.201	12.500	.67450	.12730	.00930	.68610	-.02180	.02280	-.00640	-.06000	.65510	.01972
.201	14.590	.78020	.16470	.00920	.79650	-.03659	.02240	-.00600	-.05800	.65580	.02121
.201	16.640	.89150	.21270	.00750	.91310	-.05132	.02340	-.00610	-.05800	.65700	.02329
.201	18.720	.98570	.30200	-.00490	1.03050	-.03043	.02300	-.00210	-.04900	.66170	.02666
.201	20.830	1.08750	.37930	-.01280	1.15130	-.03221	.02360	-.00240	-.04600	.66400	.03034
.201	22.690	1.16980	.45530	-.01440	1.25480	-.03567	.02640	-.00480	-.04300	.66410	.03418
.201	24.950	1.21780	.52300	-.00320	1.32470	-.03924	.02810	-.00150	-.05100	.66080	.03918
GRADIENT		.04617	.00070	.00005	.04680	-.00062	.00020	.00039	.00002	-.01111	.00007

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TABULATED SOURCE FORCE DATA-NAL 701

NR.701.0405 ORB B16C507F1J3W87V5R5X10

(RDN057) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = 4.000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .100 LIP = 4.000

RUN NO. 57/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.1690	.03620	.00750	-.11920	.02780	.02390	-.01480	-.13700	.68270	.01686
.201	-1.990	-.02170	.03290	.00770	-.02290	.03216	.02460	-.01510	-.13700	.78100	.01693
.201	-.970	.02370	.03260	.00770	.02310	.03297	.02480	-.01500	-.13600	.53950	.01699
.201	.060	.07170	.03300	.00780	.07170	.03291	.02500	-.01500	-.13700	.62070	.01695
.201	1.100	.12050	.03420	.00790	.12110	.03181	.02530	-.01480	-.13700	.63650	.01692
.201	2.120	.16720	.03610	.00790	.16850	.02991	.02500	-.01470	-.13600	.64350	.01697
.201	4.190	.26200	.04220	.00780	.26430	.02289	.02610	-.01440	-.13700	.64930	.01725
.201	6.280	.39970	.05290	.00770	.36330	.01329	.02640	-.01480	-.13500	.65230	.01701
.201	8.340	.46220	.07000	.00630	.46750	.00214	.02620	-.01530	-.13200	.65500	.01721
.201	10.420	.56300	.09260	.00690	.57090	-.01076	.02610	-.01470	-.13100	.65590	.01863
.201	12.490	.67120	.12260	.00710	.69180	-.02558	.02620	-.01490	-.13000	.65670	.01981
.201	14.590	.77780	.16750	.00550	.79320	-.04017	.02690	-.01530	-.13000	.65780	.02120
.201	16.710	.89270	.21010	.00350	.91540	-.05563	.02770	-.01570	-.13000	.65780	.02274
.201	18.720	.98490	.29020	-.00440	1.02590	-.04140	.02910	-.01030	-.13500	.65150	.02564
.201	20.790	1.07610	.37040	-.01240	1.13750	-.03576	.03040	-.00920	-.13700	.66390	.02890
.201	22.840	1.15190	.44340	-.01140	1.23370	-.03868	.03310	-.01180	-.13200	.66330	.03118
.201	24.900	1.20390	.51450	-.00320	1.30860	-.04042	.03520	-.00840	-.14100	.66080	.03546
GRADIENT		.04593	.00074	.00003	.04650	-.00058	.00026	.00006	.00002	-.00716	.00004

NR.701.0405 ORB B16C507F1J3W87V5R5X10

(RDN058) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = .000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .100 LIP = 4.000

RUN NO. 58/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.09480	.01750	-.00190	.09470	.01739	.01040	-.00410	.21100	.66750	.01985
.201	-8.040	.08330	.02690	.00430	.08330	.02678	.01350	-.00550	.12300	.64140	.01721
.201	-4.020	.07700	.03420	.01020	.07700	.03407	.01720	-.00900	.03700	.61220	.01656
.201	-2.000	.07300	.03650	.01220	.07310	.03643	.01680	-.01000	-.03500	.59990	.01597
.201	.000	.07170	.03710	.01160	.07170	.03700	.02000	-.01110	-.04600	.60070	.01641
.201	2.020	.07000	.03610	.01030	.07000	.03602	.02170	-.01260	-.08800	.60720	.01621
.201	4.010	.07190	.03310	.00750	.07200	.03304	.02470	-.01480	-.13400	.62230	.01692
.201	6.060	.07390	.02650	.00190	.07360	.02641	.02670	-.01640	-.21900	.65070	.01817
.201	12.060	.07520	.01970	-.00030	.07520	.01963	.02330	-.01320	-.29600	.66160	.02148
GRADIENT		-.00066	-.00013	-.00036	-.00065	-.00012	.00069	-.00071	-.02116	.00137	.00005

(R0ND59) ( 23 JUN 73 )

NR.701.0405 ORB B16C507F1J3487V5R5X10

REFERENCE DATA  
MACH = 4.4119 36. FT. XREF = 43.5974 INCHES  
LREF = 19.2999 INCHES YREF = .0000 INCHES  
BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
SCALE = .0405 SCALE

PARAMETRIC DATA  
ALPHA = 5.000 B.FLAP = -16.000  
RUDDER = -15.000 RFLARE = .000  
ELEVON = .000 AILRON = .000  
NACX/L = .100 LIP = 4.000

RUN NO. 59/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	COF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.32990	.03530	-.00260	.33170	.00514	.00890	.00330	.21900	.66260	.02166
.201	-6.060	.32270	.04340	.00400	.32530	.01367	.01160	.00000	.13000	.65550	.01796
.201	-4.020	.31460	.04920	.01010	.31780	.02039	.01740	-.00510	.03700	.64850	.01693
.201	-2.010	.31170	.05090	.01190	.31500	.02230	.02000	-.00720	-.00700	.64640	.01700
.201	.000	.31050	.05120	.01200	.31390	.02279	.02160	-.00960	-.04700	.64610	.01700
.201	2.010	.30950	.04990	.01040	.31270	.02154	.02350	-.01170	-.09100	.64790	.01729
.201	4.010	.31120	.04820	.00830	.31430	.01972	.02640	-.01430	-.13600	.65040	.01713
.201	6.090	.31250	.04230	.00330	.31540	.01366	.02820	-.01800	-.22100	.65590	.01871
.201	12.060	.31530	.03720	-.00070	.31740	.00839	.02680	-.01830	-.30500	.66080	.02276
GRADIENT		-.00045	-.00015	-.00025	-.00046	-.00010	.00107	-.00116	-.02141	.00026	.00003

(R0ND60) ( 23 JUN 73 )

NR.701.0405 ORB B16C507F1J3487V5R5X10

REFERENCE DATA  
MACH = 4.4119 36. FT. XREF = 43.5974 INCHES  
LREF = 19.2999 INCHES YREF = .0000 INCHES  
BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
SCALE = .0405 SCALE

PARAMETRIC DATA  
ALPHA = 10.000 B.FLAP = -16.000  
RUDDER = -15.000 RFLARE = .000  
ELEVON = .000 AILRON = .000  
NACX/L = .100 LIP = 4.000

RUN NO. 60/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	COF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.56970	.06130	-.00220	.57500	-.02266	.00610	.01190	.23300	.66130	.02205
.201	-6.060	.56620	.06910	.00310	.57490	-.01493	.00990	.00660	.13500	.65800	.01895
.201	-4.010	.56590	.09420	.00860	.57360	-.00954	.01650	-.00220	.03800	.65460	.01826
.201	-2.010	.56350	.09390	.01050	.57160	-.00747	.01930	-.00380	-.00600	.65330	.01841
.201	.000	.56240	.09660	.01080	.57060	-.00636	.02140	-.00750	-.04600	.65310	.01829
.201	2.020	.56340	.09670	.00930	.57160	-.00663	.02290	-.01090	-.06700	.65410	.01796
.201	4.010	.56390	.09450	.00720	.57170	-.00864	.02540	-.01460	-.13000	.65540	.01799
.201	6.060	.56560	.08960	.00230	.57250	-.01393	.02890	-.02090	-.21800	.65840	.01884
.201	12.060	.56480	.06560	-.00090	.57100	-.01772	.02910	-.02410	-.31100	.66030	.02206
GRADIENT		-.00060	.00007	-.00020	-.00019	.00011	.00106	-.00179	-.02076	.00012	-.00005

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TABULATED SOURCE FORCE DATA-NAL 701

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NR.701.0405 ORB 816C507F1J3A87VSR5X10

(RND0681) ( 23 JUN 73 )

## REFERENCE DATA

SRDF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
 LRDF = 11.2399 INCHES YMRP = .0000 INCHES  
 BRDF = 31.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .100 LIP = 4.000

RUN NO. 61/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.82920	.17260	-.00810	.64500	-.05659	.00650	.01920	.22700	.66340	.02383
.201	-8.040	.83110	.17860	.00010	.64880	-.05143	.01000	.01200	.13300	.65990	.02210
.201	-4.020	.83540	.18670	.00680	.65490	-.04489	.01670	.00290	.04100	.65710	.02093
.201	-2.010	.83720	.18910	.00810	.65720	-.04318	.01900	-.00120	-.00400	.65650	.02242
.201	.000	.83590	.19060	.00910	.65640	-.04107	.02220	-.00580	-.04500	.65610	.02225
.201	2.010	.83400	.18920	.00960	.65410	-.04215	.02420	-.01050	-.08600	.65590	.02112
.201	4.020	.83100	.18610	.00900	.65030	-.04440	.02660	-.01500	-.12800	.65610	.02044
.201	6.050	.82920	.18100	.00860	.64830	-.04891	.02790	-.02280	-.21000	.65880	.02127
.201	12.080	.82710	.17920	-.00350	.64480	-.04972	.02750	-.02750	-.30000	.66150	.02255
GRADIENT		-.00060	-.00005	.00029	-.00059	.00010	.00120	-.00224	-.02090	-.00015	-.00011

## REFERENCE DATA

SRDF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
 LRDF = 19.8999 INCHES YMRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 16.000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .100 LIP = 4.000

RUN NO. 62/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.94620	.28030	-.01560	1.00510	-.04405	.00700	.01330	.23900	.66550	.02660
.201	-8.040	.97460	.29170	-.01330	1.01670	-.05601	.00940	.00990	.14100	.66460	.02624
.201	-4.020	.97610	.29660	-.00410	1.02030	-.03012	.01350	.00270	.04700	.66140	.02531
.201	-2.010	.98070	.30270	-.00370	1.02600	-.02786	.01900	.00060	.00000	.66130	.02777
.201	.000	.98260	.30340	-.00240	1.02800	-.02775	.02060	-.00310	-.04000	.66080	.02727
.201	2.020	.98140	.29900	-.00170	1.02540	-.03162	.02320	-.00560	-.08400	.66060	.02691
.201	4.020	.97720	.29360	-.00160	1.01960	-.03494	.02660	-.00860	-.12900	.66060	.02625
.201	6.060	.97450	.28550	-.00660	1.01440	-.04166	.02750	-.01560	-.21400	.66230	.02574
.201	12.100	.96200	.26290	-.01350	1.00190	-.04013	.02870	-.01850	-.31200	.66480	.02566
GRADIENT		.00014	-.00066	.00033	-.00006	.00067	.00133	-.00143	-.02166	-.00011	.00009

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-MAL 701

MR. 701.0405 OBS B16C50771J3487V53X10

(ED0683) ( 25 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36. FT. 1000P = 43.9974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 2000P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.F.LAP = -16.000  
 P.DEEP = -7.500 R.F.LABE = .000  
 ELEVON = .000 AILRON = .000  
 MACUL = .100 LIP = 4.000

RUN NO. 63/ 0 RUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	ICP/L	CAB
.201	-4.040	-1.1170	.03340	.00780	-1.1940	.02905	.01280	-.00920	-.03250	.63360	.01532
.201	-1.960	-.02480	.03080	.00820	-.02680	.02971	.01280	-.02650	-.03300	.7010	.01478
.201	-.350	.02440	.02950	.00820	.02390	.02990	.01270	-.02700	-.03100	.61650	.01579
.201	.060	.07380	.03090	.00820	.07370	.03039	.01250	-.02770	-.02700	.61960	.01547
.201	1.100	.12020	.03130	.00900	.12060	.02899	.01250	-.02740	-.02700	.63590	.01603
.201	2.150	.16890	.03380	.00810	.16810	.02757	.01240	-.02700	-.02700	.64250	.01559
.201	4.190	.21240	.04130	.00820	.20470	.02196	.01240	-.02640	-.02700	.64870	.01482
.201	6.260	.26180	.04980	.00690	.26510	.00997	.01220	-.02550	-.02500	.65310	.01635
.201	8.330	.46100	.08710	.00650	.46590	-.00043	.01220	-.02550	-.02500	.65490	.01615
.201	10.410	.56420	.08950	.00670	.57170	-.01423	.01170	-.02490	-.02500	.65570	.01822
.201	12.480	.67490	.12090	.00540	.68490	-.02789	.01190	-.02470	-.02500	.65710	.01948
.201	14.560	.76490	.15990	.00500	.79950	-.04349	.01200	-.02420	-.02600	.65770	.02139
.201	16.640	.86490	.20720	.00170	.91870	-.05811	.01260	-.02460	-.02600	.65930	.02337
.201	18.730	.99510	.25510	-.00990	1.03240	-.07352	.01410	-.02300	-.03200	.66330	.02413
.201	20.830	1.09510	.37460	-.02200	1.15670	-.09336	.01370	-.02300	-.03200	.66680	.02227
.201	22.890	1.17030	.44890	-.01000	1.25280	-.04210	.01490	-.02110	-.03000	.66540	.03425
.201	24.970	1.22150	.51660	-.00640	1.32530	-.04716	.01520	-.02060	-.03400	.66220	.04018
GRADIENT	.04632	.00002	.00002	.00003	.04684	-.00041	-.00006	.00033	.00079	-.00684	-.00001

MR. 701.0405 OBS B16C50771J3487V53X10

(ED0684) ( 25 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36. FT. 1000P = 43.9974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 2000P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .000 B.F.LAP = -16.000  
 P.DEEP = -7.500 R.F.LABE = .000  
 ELEVON = .000 AILRON = .000  
 MACUL = .100 LIP = 4.000

RUN NO. 64/ 0 RUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	ICP/L	CAB
.201	-12.070	.08950	.01290	-.00340	.08950	.01279	.00100	.00010	.22500	.67540	.01974
.201	-6.030	.08440	.02110	.00080	.08440	.02093	.00310	-.00030	.14850	.63650	.01857
.201	-4.010	.07770	.02740	.00590	.07770	.02724	.00780	-.00000	.05900	.63230	.01613
.201	-2.000	.07470	.03080	.00760	.07460	.03046	.01090	.00000	.01400	.62320	.01519
.201	.000	.07340	.03030	.00690	.07350	.03019	.01250	-.00780	-.02800	.62070	.01637
.201	2.000	.07060	.02910	.00640	.07070	.02905	.01420	-.00610	-.00700	.62750	.01638
.201	4.030	.07190	.02890	.00400	.07190	.02679	.01670	-.01110	-.01500	.63950	.01709
.201	6.090	.07310	.02140	.00000	.07320	.02127	.01820	-.01230	-.01900	.63980	.01779
.201	12.100	.07370	.01400	-.00290	.07370	.01387	.01800	-.01070	-.02900	.67440	.02145
GRADIENT	-.00062	-.00002	-.00013	-.00003	-.00062	-.00012	.00106	-.00067	-.02151	.00095	.00013



NR. T01.0405 CR8 B16C507F1J3487VSR5X10

(RDN065) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 56.17. 198P = 43.9974 INCHES  
 LREF = 19.2999 INCHES 198P = .0000 INCHES  
 BREF = 37.3349 INCHES 198P = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 65/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 B-FLAP = -16.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .100 LIP = 4.000

MACN	BETA	CL	QCF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.32890	.03040	-.00520	.39030	.00032	-.00090	.00680	.24400	.66560	.02181
.201	-8.090	.32140	.03740	.00000	.32350	.00796	.00100	.00400	.13700	.66000	.01724
.201	-4.010	.31490	.04190	.00560	.31740	.01263	.00690	-.00130	.06200	.65350	.01845
.201	-2.020	.31070	.04390	.00730	.31340	.01543	.00970	-.00410	.01800	.65150	.01530
.201	.000	.31170	.04410	.00690	.31440	.01555	.01250	-.00660	-.02800	.65200	.01695
.201	2.020	.31090	.04340	.00560	.31320	.01494	.01410	-.00870	-.06800	.65330	.01652
.201	4.020	.30940	.04190	.00390	.31190	.01317	.01740	-.01150	-.11500	.65340	.01679
.201	6.080	.31040	.03710	-.00020	.31250	.00670	.00790	-.01540	-.20300	.66030	.01779
.201	12.080	.31490	.03220	-.00420	.31650	.00339	.01960	-.01610	-.28800	.66470	.02172
GRADIENT		-.00056	-.00003	-.00024	-.00056	.00003	.00126	-.00124	-.02169	.00028	.00009

## REFERENCE DATA

SREF = 4.4119 56.17. 198P = 43.9974 INCHES  
 LREF = 19.2999 INCHES 198P = .0000 INCHES  
 BREF = 37.3349 INCHES 198P = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 66/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 10.000 B-FLAP = -16.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .100 LIP = 4.000

MACN	BETA	CL	QCF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.36880	.07700	-.00460	.57320	-.02683	-.00290	.01400	.25300	.66280	.02174
.201	-8.040	.36890	.08370	-.00080	.57470	-.02024	-.00010	.00920	.15700	.66030	.01897
.201	-4.020	.36530	.08630	.00340	.57220	-.01518	.00680	.00190	.06200	.65780	.01730
.201	-2.010	.36530	.08920	.00300	.57210	-.01424	.00990	-.00160	.01700	.65680	.01782
.201	.000	.36510	.09010	.00330	.57210	-.01328	.01250	-.00560	-.02900	.65680	.01621
.201	2.010	.36670	.08930	.00320	.57360	-.01420	.01450	-.00910	-.06800	.65790	.01693
.201	4.020	.36590	.08630	.00140	.57260	-.01522	.01760	-.01270	-.11300	.65900	.01847
.201	6.080	.36580	.08420	-.00170	.57190	-.01915	.02190	-.01890	-.20300	.66110	.01848
.201	12.080	.36370	.07990	-.00490	.56880	-.02302	.02310	-.02250	-.29800	.66310	.02167
GRADIENT		.00011	.00001	-.00029	.00011	-.00000	.00130	-.00163	-.02164	.00017	.00017

NR.701.0403 ORB 816C507F1J3A87V545X110

(R00087) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36.17. 1069 = 43.9974 INCHES  
 UREF = 19.2999 INCHES 1169 = .0000 INCHES  
 PREF = 37.9349 INCHES 2169 = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 8. PLAP = -18.000  
 RUDDER = -7.500 8. PLARE = .000  
 ELEVON = .000 8. PLRON = .000  
 NACVL = .100 8. LIP = 4.000

RUN NO. 67/ 0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	QL	QDF	CLM	ON	CAP	CLN	CSL	CY	XCP/L	CAB
.201	-12.100	.82910	.16860	-.01040	.84390	-.06066	-.00170	.02757	.24800	.66440	.02336
.201	-8.050	.83470	.17390	-.00290	.85080	-.05759	.00036	.01360	.15300	.56100	.02171
.201	-4.020	.83980	.18090	.00170	.85730	-.05185	.00690	.00460	.06400	.45920	.02784
.201	-2.020	.84310	.18390	.00220	.86140	-.05043	.01030	.00020	.01900	.35900	.02236
.201	.000	.84290	.18510	.00160	.86180	-.04691	.01310	-.00460	-.02500	.25920	.02239
.201	2.020	.84420	.18400	.00120	.86290	-.05016	.01590	-.00910	-.06000	.15940	.02728
.201	4.010	.84170	.18070	.00080	.85930	-.05257	.01900	-.01400	-.11100	.05990	.02230
.201	6.050	.83250	.17400	-.00190	.84640	-.05629	.02190	-.02140	-.19700	.06080	.02116
.201	12.090	.82530	.17070	-.00760	.84100	-.05758	.02310	-.02670	-.29100	.06320	.02202
GRADIENT		.00001	.00001	-.00020	.00025	-.00006	.00152	-.00233	-.02174	.00009	.00017

NR.701.0403 ORB 816C507F1J3A87V545X110

(R00088) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36.17. 1069 = 43.9974 INCHES  
 UREF = 19.2999 INCHES 1169 = .0000 INCHES  
 PREF = 37.9349 INCHES 2169 = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

ALPHA = 16.000 8. PLAP = -18.000  
 RUDDER = -7.500 8. PLARE = .000  
 ELEVON = .000 8. PLRON = .000  
 NACVL = .100 8. LIP = 4.000

RUN NO. 68/ 0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	QL	QDF	CLM	ON	CAP	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.86980	.27860	-.02260	1.00900	-.04 85	-.00090	.01340	.25700	.66600	.02748
.201	-8.050	.87880	.28600	-.01750	1.01880	-.04283	.00070	.01130	.15800	.66610	.02554
.201	-4.000	.88240	.29210	-.01560	1.02420	-.03890	.00690	.00550	.06400	.56140	.02495
.201	-2.020	.88690	.29820	-.01010	1.03170	-.03674	.01130	.00290	.01600	.46350	.02729
.201	.000	.89180	.29700	-.00940	1.03490	-.03669	.01480	.00710	-.02900	.36320	.02787
.201	2.010	.89550	.29320	-.00930	1.03030	-.04264	.01690	-.00170	-.06000	.26320	.02790
.201	4.010	.89610	.28460	-.00910	1.02530	-.04646	.02110	-.00780	-.11900	.16320	.02727
.201	6.050	.89440	.27810	-.01110	1.01190	-.05078	.02350	-.01420	-.20600	.06190	.02642
.201	12.100	.89780	.27080	-.01590	.99390	-.05034	.02410	-.01580	-.30300	.06370	.02522
GRADIENT		.00040	-.00103	.00011	.00004	-.00109	.00172	-.00175	-.02219	-.00003	.00022

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TABULATED SOURCE FORCE DATA-NAL T01

NR.T01.0405 C08 B16C50TF1J3A8TVSR5X10

(RDN069) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = 4.000 B.FLAP = -10.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .100 LIP = 4.000

RUN NO. 09/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.080	-1.1820	.02990	.00470	-1.2010	.02142	.01610	-.01090	-.11700	.67420	.01638
.201	-2.020	-.02340	.02710	.00440	-.02440	.02630	.01610	-.01070	-.11600	.72620	.01822
.201	-.970	.02510	.02670	.00470	.02460	.02708	.01620	-.01100	-.11970	.59090	.01844
.201	.070	.07290	.02790	.00460	.07290	.02740	.01650	-.01100	-.11600	.63720	.01596
.201	1.070	.11980	.02990	.00420	.12010	.02721	.01690	-.01110	-.11400	.64710	.01342
.201	2.090	.16720	.02990	.00440	.16810	.02374	.01670	-.01130	-.11400	.65050	.01715
.201	4.180	.26630	.03790	.00360	.26860	.01783	.01720	-.01160	-.11900	.65110	.01649
.201	6.230	.46470	.04770	.00330	.46950	.00823	.01720	-.01230	-.11300	.65660	.01651
.201	8.320	.66470	.06520	.00260	.67350	-.00283	.01720	-.01270	-.11100	.65790	.01650
.201	10.380	.86470	.08740	.00190	.87350	-.01681	.01770	-.01310	-.11200	.6 870	.01685
.201	12.480	.67440	.11770	.00180	.68390	-.03068	.01790	-.01370	-.11300	.65970	.01949
.201	14.600	.78320	.15690	.00100	.79990	-.04647	.01680	-.01360	-.11200	.65950	.02177
.201	16.840	.89400	.20310	.00000	.91470	-.06149	.01680	-.01330	-.11300	.66000	.02742
.201	18.680	.96500	.26490	-.00910	1.02490	-.04576	.02140	-.00870	-.12100	.66320	.02713
.201	20.780	1.07260	.35840	-.01290	1.12990	-.04582	.02120	-.00930	-.11300	.66410	.03027
.201	22.830	1.14670	.43270	-.01260	1.22480	-.04632	.02360	-.01010	-.11500	.66370	.03256
.201	24.890	1.19820	.50270	-.00470	1.29570	-.04745	.02510	-.00770	-.11200	.66190	.03620
GRADIENT	.04662	.00008	.00008	-.00012	.04709	-.00745	.00014	-.00013	.00030	-.00359	.00003

(RDN070) ( 23 JUN 73 )

NR.T01.0405 C08 B16C50TF1J3A8TVSR5X10

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -10.000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .100 LIP = 4.000

## REFERENCE DATA

SREF = 4.4119 50.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 70/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.08680	.01780	.00070	.08680	.01782	.03630	-.01360	.11400	.65660	.02359
.201	-8.020	.06700	.02300	.00510	.08210	.02293	.02570	-.00920	.07400	.63740	.01904
.201	-4.010	.07900	.02660	.00620	.07800	.02647	.01960	-.00320	.03600	.62190	.01328
.201	-2.010	.07480	.02720	.00930	.07480	.02714	.00620	-.00320	.01870	.61520	.01411
.201	.000	.07330	.02790	.00760	.07340	.02746	-.00030	-.02110	.00000	.61260	.01381
.201	2.020	.07260	.02700	.00530	.07260	.02694	-.00660	-.01110	-.01800	.61390	.01448
.201	4.020	.07390	.02990	.00600	.07390	.02584	-.01300	.00320	-.03400	.62090	.01611
.201	6.040	.07520	.02250	.00500	.07520	.02241	-.01300	.00740	-.07100	.63570	.01984
.201	12.090	.07630	.01790	.00020	.07630	.01744	-.03690	.01210	-.11400	.65680	.02447
GRADIENT	-.00090	-.00008	-.00008	-.00002	-.00050	-.00007	-.00019	.00105	-.00066	-.00017	.00010

NR.701.0405 ORB 818C507F1J3M87X10

(R060713) (23 JUN 73)

## REFERENCE DATA

SPOT = 4.4119 36.FT. 100P = 43.9974 INCHES  
 UNOT = 19.2999 INCHES 100P = .0000 INCHES  
 BROF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 71/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 0.FLAP = -18.000  
 ELEVON = .000 AIRON = .000  
 NACX/L = .100 LJP = 4.000

WACH	BETA	CL	CDP	CLN	ON	CAF	CLM	CSL	CY	XCP/L	CAB
.201	-12.090	.32390	.03990	.00000	.32740	.00617	.03640	-.05400	.12500	.63970	.02416
.201	-8.040	.32190	.03990	.00400	.32360	.01046	.02560	-.00310	.04700	.63540	.01964
.201	-4.010	.31770	.04200	.00650	.32020	.01296	.01300	-.00270	.05400	.63260	.01537
.201	-2.010	.31560	.04200	.00720	.31810	.01312	.00690	-.00270	.01970	.63160	.01460
.201	.010	.31370	.04260	.00750	.31630	.01414	.00050	-.00220	.00700	.63170	.01567
.201	2.060	.31480	.04240	.00710	.31750	.01365	-.00550	-.00190	-.01200	.63190	.01492
.201	4.050	.31370	.04140	.00620	.31640	.01268	-.01190	-.00160	-.03700	.63280	.01623
.201	6.060	.31530	.03960	.00390	.31760	.01060	-.02430	-.00110	-.07800	.63550	.02007
.201	12.100	.31560	.03710	.00020	.31760	.00629	-.03690	.00000	-.12200	.65970	.02361
GRADIENT	-.00042	-.00042	-.00004	-.00003	-.00042	-.00000	-.00306	.00013	-.00930	.00002	.00006

## REFERENCE DATA

SPOT = 4.4119 36.FT. 100P = 43.9974 INCHES  
 UNOT = 19.2999 INCHES 100P = .0000 INCHES  
 BROF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

NR.701.0405 ORB 818C507F1J3M87X10

(R06072) (23 JUN 73)

## PARAMETRIC DATA

ALPHA = 10.000 0.FLAP = -18.000  
 ELEVON = .000 AIRON = .000  
 NACX/L = .100 LJP = 4.000

WACH	BETA	CL	CDP	CLN	ON	CAF	CLM	CSL	CY	XCP/L	CAB
.201	-12.070	.56130	.06210	.00080	.56690	-.02028	.03670	.00660	.13100	.63620	.02429
.201	-8.060	.56400	.06990	.00470	.57020	-.01710	.02540	.00460	.06000	.63700	.01990
.201	-4.010	.56880	.06790	.00630	.57320	-.01567	.01300	.00150	.03700	.63600	.01664
.201	-2.000	.56560	.06870	.00710	.57240	-.01534	.00690	-.00010	.01600	.63550	.01556
.201	.010	.56690	.06990	.00740	.57330	-.01457	.00070	-.00220	.00000	.63530	.01493
.201	2.060	.56710	.06930	.00660	.57390	-.01436	-.00330	-.00420	-.01700	.63560	.01376
.201	4.010	.56730	.06990	.00610	.57400	-.01477	-.01130	-.00630	-.03500	.63610	.01709
.201	6.070	.56520	.06710	.00270	.57180	-.01623	-.02360	-.00930	-.07900	.63620	.02044
.201	12.060	.55630	.06390	.00030	.56430	-.01794	-.03630	-.01120	-.13070	.63560	.02442
GRADIENT	.00013	.00013	.00016	-.00003	.00015	.00014	-.00303	-.00096	-.00892	.00001	.00003

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL 701

(RND073) ( 23 JUN 73 )

NR.701.0405 ORB 816C507F1J3W07X10

PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -18.000  
ELEVON = .000 AILRON = .000  
MACV/L = .100 LIP = 4.000

REFERENCE DATA

REF = 4.4119 54.17. 100P = 43.9974 INCHES  
LREF = 19.2999 INCHES 100P = .0000 INCHES  
BREF = 37.9349 INCHES 100P = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 73/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-12.070	.62190	.17380	-.00170	.83640	-.05354	.04150	.01750	.12800	.66070	.02995
.201	-6.030	.62700	.17810	.00350	.84390	-.05259	.02630	.01170	.08100	.65940	.02193
.201	-4.000	.63750	.18100	.00480	.85320	-.05077	.01280	.00480	.04200	.65790	.01872
.201	2.000	.64050	.18210	.00460	.85950	-.05056	.00700	.00130	.02200	.65790	.01941
.201	4.000	.64380	.18320	.00500	.86200	-.05053	.00380	-.00290	.00300	.65780	.01996
.201	6.000	.64590	.18280	.00530	.85810	-.04979	-.00490	-.00600	-.01800	.65770	.01953
.201	8.000	.63960	.18110	.00560	.85350	-.05020	-.01100	-.00990	-.03400	.65760	.01941
.201	10.000	.62390	.17610	.00590	.84090	-.05168	-.02350	-.01670	-.07300	.65830	.02178
.201	12.000	.61740	.17420	-.00090	.83420	-.05183	-.03890	-.02120	-.12100	.66040	.02553
.201	GRADIENT	-.00005	.00005	.00010	-.00019	.00010	-.00297	-.00183	-.00948	-.00004	.00007

NR.701.0405 ORB 816C507F1J3W07X10

(RND074) ( 23 JUN 73 )

PARAMETRIC DATA

ALPHA = 16.000 B.FLAP = -18.000  
ELEVON = .000 AILRON = .000  
MACV/L = .100 LIP = 4.000

REFERENCE DATA

REF = 4.4119 54.17. 100P = 43.9974 INCHES  
LREF = 19.2999 INCHES 100P = .0000 INCHES  
BREF = 37.9349 INCHES 100P = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 74/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-12.080	.95680	.28300	-.01280	.99890	-.03901	.04320	.01190	.13500	.66480	.02888
.201	-6.030	.97080	.28930	-.01090	1.01210	-.03704	.02670	.00820	.09000	.66380	.02354
.201	-4.000	.98260	.29310	-.00830	1.02470	-.03734	.01340	.00350	.04200	.66220	.02328
.201	2.010	.98800	.29660	-.00920	1.03090	-.03589	.00610	.00090	.02200	.66320	.02499
.201	4.000	.99070	.29850	-.00820	1.03340	-.03709	.00180	.00030	.00100	.66280	.02803
.201	6.000	.99920	.29300	-.00630	1.03090	-.03986	-.00360	-.00150	-.02100	.66220	.02562
.201	8.000	.97940	.29930	-.00450	1.02080	-.04017	-.00870	-.00360	-.04200	.66180	.02392
.201	10.000	.97150	.27930	-.00480	1.00960	-.04676	-.02290	-.01100	-.08700	.66170	.02822
.201	12.000	.95080	.27690	-.01000	.99930	-.04206	-.03750	-.01370	-.13600	.66360	.02886
.201	GRADIENT	-.00072	-.00056	.00032	-.00039	-.00046	-.00279	-.00113	-.01032	-.00011	.00010

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR. 701.0405 ORB 816C5D7F1J3612M7V5X10

(RCND75) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36.FT. XSRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YSRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZSRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 Y.FLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .100 LIP = 4.000

RUN NO. 75/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.060	-.09670	.06280	.00030	-.10090	.05580	-.00030	-.00090	.00000	.66130	.01561
.201	-1.980	-.00560	.03800	.00090	-.00780	.03781	-.00020	-.00120	.00000	.70290	.01652
.201	-.950	.04050	.05810	.00130	.03950	.03873	-.00010	-.00130	.00000	.64780	.01558
.201	.070	.08750	.03820	.00110	.08780	.03811	.00000	-.00150	.00000	.65310	.01551
.201	1.110	.13290	.05810	.00120	.13400	.03553	.00000	-.00150	.00000	.65670	.01585
.201	2.130	.17950	.05940	.00100	.18160	.03270	.00000	-.00190	.00000	.65780	.01586
.201	4.190	.27010	.06470	.00070	.27410	.04471	.00010	-.00210	.00000	.65960	.01615
.201	6.280	.36370	.07340	.00020	.37150	.03306	.00030	-.00230	.00000	.65970	.01658
.201	8.320	.46080	.08930	.00000	.46890	.02163	.00060	-.00240	.00000	.65990	.01585
.201	10.380	.56080	.11080	.00000	.57150	.00767	.00040	-.00250	.00000	.66000	.01745
.201	12.490	.67040	.14050	.00000	.68490	-.00780	.00030	-.00280	.00100	.66000	.01963
.201	14.570	.77930	.17740	.00000	.79880	-.02440	.00030	-.00280	.00000	.66000	.02113
.201	16.620	.88320	.22210	-.00190	.90990	-.03991	.00070	-.00320	.00100	.66070	.02356
.201	18.710	.97540	.31200	-.01400	1.02390	-.01757	.00210	.00760	-.00100	.66490	.02747
.201	20.800	1.06910	.38320	-.01820	1.13550	-.02157	.00220	-.00120	.00000	.66370	.03029
.201	22.850	1.14130	.45340	-.01580	1.22780	-.02537	.00410	-.00100	-.00200	.66460	.03501
.201	24.920	1.17870	.51580	-.00410	1.28630	-.02899	.00290	.00070	-.00300	.66110	.03901
GRADIENT		.04459	.00024	.00004	.04558	-.00133	.00005	-.00015	.00000	-.00208	.00003

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL T01

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NR.701.0403 ORB B16C507F1J5G12487V3X10

(R0N078) ( 23 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 54.171. XMRP = 43.5974 INCHES  
 LREF = 1.1230 INCHES YMRP = .0000 INCHES  
 BREF = 17.9340 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

BETA =  
 RUDDER =  
 ELEVON =  
 MACH/L =

.000 B-FLAP = -18.000  
 .000 RFLARE = .000  
 .000 AILRON = .000  
 .250 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 76/ 0 RNL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.060	-1.0340	.06150	.00110	-1.0750	.03406	.00000	-1.00080	-.00200	.66370	.01519
.201	-2.000	-.01100	.03780	.00150	-.01300	.03736	-.00010	-.00090	.00000	.70210	.01507
.201	-.970	.03590	.03770	.00160	.03490	.03829	-.00010	-.00070	-.00100	.64340	.01440
.201	.060	.08200	.03720	.00120	.08200	.03703	-.00010	-.00090	.00000	.65440	.01456
.201	1.080	.12720	.03740	.00140	.12830	.03498	-.00020	-.00060	.00000	.65580	.01509
.201	2.110	.17350	.03870	.00180	.17560	.03224	-.00020	-.00100	.00000	.65810	.01464
.201	4.160	.26380	.06310	.00130	.26770	.03379	.00070	-.00090	.00000	.65810	.01502
.201	6.230	.35820	.07180	.00110	.36390	.03250	-.00010	-.00130	.00000	.65890	.01485
.201	8.280	.45350	.08550	.00140	.46110	.01926	.00000	-.00140	.00000	.65880	.01553
.201	10.370	.55610	.10700	.00080	.56630	.00516	-.00020	-.00170	.00100	.65940	.01687
.201	12.440	.66540	.13700	-.00100	.67930	-.00959	-.00050	-.00190	.00200	.66030	.01899
.201	14.520	.77190	.17290	-.00260	.79060	-.02623	-.00110	-.00240	.00300	.66110	.02031
.201	16.610	.88400	.22020	-.00330	.91010	-.34170	-.00110	-.00330	.00700	.66210	.02246
.201	18.690	.97910	.30150	-.01640	1.02410	-.02819	.00080	.00100	.00100	.66370	.02666
.201	20.780	1.06350	.37460	-.01980	1.12720	-.02731	.00000	.00010	.00300	.66630	.02960
.201	22.820	1.13170	.44290	-.01580	1.21490	-.03090	.00120	.00110	.00100	.66460	.03459
.201	24.890	1.17860	.50970	-.00640	1.28360	-.03375	.00120	.00100	.00100	.66180	.03927
.201	GRADIENT	.04471	.00018	.00003	.04559	-.00126	-.00701	-.00001	.00021	-.00237	-.00002

NR. 701.0405 OR8 B16C507F1J3612MB7E18V9X10

(PCNO77) ( 2 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36.FT. 308P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 198P = .0000 INCHES  
 BREF = 37.9349 INCHES 208P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 5.000 AIRLON = .000  
 MAXVAL = .250 LIP = 4.050

RUN NO. 77/0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CL	XCP/L	CAB
.201	-2.990	-.00130	.02980	-.04480	-.00340	.04936	.00040	-.00090	-.00400	-7.25440	.01707
.201	-1.920	.09220	.05900	-.04490	.09010	.06207	-.02230	-.00110	.01900	.1370	.01650
.201	-.960	.13780	.06000	-.04470	.13680	.06213	-.00420	-.00130	.01770	.17730	.01875
.201	.140	.18030	.06130	-.04320	.18080	.06066	-.00450	-.00160	.03000	.14930	.01631
.201	1.180	.22810	.06250	-.04480	.22940	.05780	-.00490	-.00180	.04000	.17320	.01732
.201	2.180	.27330	.06350	-.04350	.27560	.05501	-.00320	-.00180	.02970	.1920	.01716
.201	4.250	.36100	.07380	-.04490	.36350	.04666	-.00260	-.00190	.02500	.17410	.01628
.201	6.330	.44450	.08500	-.04340	.46100	.03436	-.00390	-.00280	.01700	.69530	.01633
.201	8.370	.55200	.10310	-.04550	.56110	.02155	-.00590	-.00290	.01550	.68310	.01694
.201	10.430	.65690	.12870	-.04750	.66930	.00759	-.00420	-.00290	.04000	.68340	.01839
.201	12.590	.76500	.16240	-.04920	.78200	-.00777	-.00560	-.00440	.05100	.68250	.02012
.201	14.630	.87650	.20480	-.05200	.89580	-.02320	-.00320	-.00490	.04700	.68070	.02248
.201	16.720	.96280	.25610	-.05460	1.01430	-.03767	-.00590	-.00610	.05200	.67930	.02430
.201	18.800	1.07130	.34240	-.06280	1.12450	-.02117	.00060	.00190	.00000	.67590	.02946
.201	20.840	1.14940	.41810	-.06360	1.22290	-.01979	-.00050	.00070	.01200	.67890	.03293
.201	22.900	1.21130	.48820	-.05770	1.30580	-.02169	.00250	.00230	-.01000	.67580	.03779
.201	24.940	1.27410	.54850	-.04510	1.35390	-.02511	.00200	-.00310	.01400	.67060	.04326
.201		.04400	.00165	-.00006	.04505	-.00180	-.00033	-.00013	.00323	.26987	-.00005

GRADIENT





NR. 701.0405 ORB 816C507F13M87E18V5X10

(R00079) (25.01.73)

## REFERENCE DATA

SREF = 4.4119 54.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 27.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = .000 AILTON = 5.000  
 NACA/L = .250 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 73/ 0 RV/L = 1.44 GRADIENT INTERVAL = -9.00/ 5.00

WACH	ALPHA	CL	CD	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.11630	.03490	.00960	-1.11830	.02889	.02490	.01910	-.01607	.68320	.01486
.201	-2.650	-.02210	.03120	.00930	-.02320	.03044	.02450	.01970	-.01900	.0720	.01315
.201	-.970	.02560	.03100	.00990	.02500	.03144	.02440	.01970	-.01900	.51740	.01470
.201	.050	.07150	.03110	.00980	.07150	.03103	.02410	.02010	-.02100	.61060	.01523
.201	1.070	.12050	.03280	.00990	.12110	.03056	.02380	.02050	-.02100	.63060	.01504
.201	2.120	.16570	.03430	.01000	.16690	.02810	.02350	.02050	-.02100	.63820	.01530
.201	4.160	.23860	.04000	.01020	.26110	.02110	.02310	.02110	-.02300	.64590	.01557
.201	6.240	.35540	.05010	.00970	.35870	.01103	.02260	.02140	-.02500	.65020	.01570
.201	8.370	.45360	.06570	.00930	.45830	-.00051	.02200	.02170	-.02700	.65260	.01589
.201	10.400	.56220	.08820	.00900	.56890	-.01479	.02130	.02210	-.02900	.65420	.01783
.201	12.460	.67170	.11370	.00870	.68170	-.02813	.02010	.02230	-.02900	.65590	.01937
.201	14.550	.77330	.15700	.00830	.79780	-.04410	-.00100	.02210	-.02900	.65840	.02171
.201	16.690	.87500	.20380	-.00050	.91740	-.05955	-.00090	.02090	-.03000	.66010	.02409
.201	18.710	.97510	.27070	-.01290	1.03580	-.04398	-.00170	.02220	-.03000	.66420	.02791
.201	20.800	1.06600	.37200	-.02200	1.15860	-.04218	-.00240	.02020	-.02800	.66680	.03114
.201	22.870	1.16300	.49540	-.02090	1.26460	-.04576	-.00150	.01630	-.02400	.66390	.03478
.201	24.940	1.24000	.62280	-.01120	1.34480	-.04889	-.00020	.01390	-.02400	.66340	.03939
.201	GRADIENT	.04562	.00006	.00008	.04617	-.00064	-.00023	.00024	-.00079	-.00920	.00010

DATE 20 JUN 75

(RDNORU) ( 25 JUN 75 )

REMARKS: 1.0400 GRS 8130507113437818V5110

PARAMETRIC DATA

BETA = .000 B-FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -5.000 AIRLON = .000  
 MAX/L = .250 LIP = 4.000

REFERENCE DATA

SIDE = 4.4119 INCHES XREF = 43.5974 INCHES  
 LEAD = 19.2099 INCHES YREF = .0000 INCHES  
 BALT = 37.9349 INCHES ZREF = 15.2000 INCHES  
 SCALE = .0400 SCALE

RUN NO. 80/ D RNL = 1.44 GRADIENT INTERVAL = -5.00/ 3.02

MAOH	ALPHA	CL	CD	CLH	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.150	-.23700	.03910	.06080	-.00020	.02184	-.00020	-.00100	-.00100	.75130	.01204
.201	-2.090	-.14050	.03220	.06120	-.00020	.02701	-.00020	-.00080	-.00100	.61500	.01221
.201	-1.030	-.09170	.02990	.06130	-.00020	.02822	-.00020	-.00080	.00000	.89880	.01226
.201	-.010	-.04500	.02830	.06210	-.00010	.02828	-.00010	-.00090	.00000	1.15580	.01226
.201	1.010	.00330	.02780	.06230	-.00010	.02775	-.00010	-.00070	-.00100	1.44810	.01218
.201	2.050	.05160	.02800	.06230	-.00010	.02613	-.00010	-.00090	.00000	.23530	.01225
.201	4.100	.14490	.03060	.06270	-.00010	.02313	-.00010	-.00090	.00000	.50660	.01263
.201	6.190	.24060	.03670	.06230	-.00010	.01050	-.00010	-.00100	.00000	.56800	.01277
.201	8.260	.33950	.04830	.06230	-.00010	-.00100	-.00010	-.00110	.00000	.59470	.01322
.201	10.350	.44640	.06620	.06300	-.00010	-.01510	-.00010	-.00120	.00100	.60980	.01507
.201	12.390	.55680	.09390	.06500	-.00010	-.02783	-.00010	-.00130	.00100	.62130	.01654
.201	14.480	.66870	.12820	.05790	-.00010	-.02513	-.00010	-.00210	.00300	.62930	.01843
.201	16.560	.78130	.17040	.05600	-.00010	-.01937	-.00010	-.00280	.00400	.63470	.02028
.201	18.630	.88440	.24660	.04350	-.00010	-.01486	-.00010	-.00020	.00100	.64290	.02325
.201	20.780	.99060	.32700	.02310	.00160	-.01000	.00080	-.00030	.00300	.64860	.02513
.201	22.800	1.07980	.39960	.03160	.00430	-.00501	.00430	-.00290	.00400	.65010	.02917
.201	24.890	1.14380	.47110	.03560	.00450	-.00423	.00450	-.00330	.00300	.64960	.03410
.201	GRADIENT	04577	-.0010	.00720	.00001	.00000	.00001	.00001	.00010	-.00664	.00005

22.701.0405 ORB B16C407F13J467E16V5X10

(220081) (03 03 70)

## REFERENCE DATA

REF = 4.4119 34.FT. 300P = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 GREF = 37.9349 INCHES ZMRP = 16.2070 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

WETA = .000 0.FLAP = 16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -10.000 AILRON = .000  
 WCAVL = .250 LIP = .000

RUN NO. 8170 BNVL = 1.44 GRADIENT INTERVAL = 5.00/ 5.00

WACH	ALPHA	CL	IDEF	CLH	CN	CAF	CLN	COL	CT	YCP/L	CAB
.201	14.200	-132720	04840	10150	-132980	00431	-00040	-00070	-00000	177040	01023
.201	15.120	-122750	00990	09950	-122880	00313	-00090	00040	-00000	16160	01031
.201	16.080	-118080	00660	09940	-118150	00308	-00090	00070	-00000	15560	01033
.201	17.000	-113260	00370	09960	-113260	00353	-00090	00080	-00000	14950	01051
.201	18.000	-108850	00200	09970	-108800	00347	-00080	00100	-00000	14320	01065
.201	19.000	-103690	00080	10000	-103580	00320	-00070	00120	-00000	13680	01050
.201	20.000	-98590	00090	10000	-98590	00265	-00090	00120	-00000	13040	01061
.201	21.000	-93570	00390	10190	-93540	001760	-00040	00090	-00000	12400	01134
.201	22.000	-88570	04150	10460	-88570	00373	-00040	00000	-00000	11760	01264
.201	23.000	-83570	00720	10370	-83590	-00372	-00020	-00010	-00000	11120	01290
.201	24.000	-78570	00810	10390	-78570	-00320	-00070	-00050	-00000	10480	01479
.201	25.000	-73570	00810	10390	-73570	-003458	-00120	-00160	-00000	9840	01671
.201	26.000	-68570	00810	10390	-68570	-004854	-00070	-00160	-00000	9200	01848
.201	27.000	-63570	00810	10390	-63570	-004216	-00040	-00020	-00000	8560	02021
.201	28.000	-58570	00810	10390	-58570	-004092	-00080	-00050	-00000	7920	02285
.201	29.000	-53570	00810	10390	-53570	-004513	-00300	-00200	-00000	7280	02565
.201	30.000	-48570	00810	10390	-48570	-005003	-00220	-00010	-00000	6640	02847
.201	31.000	-43570	00810	10390	-43570	-005027	-00000	-00000	-00000	6000	03129

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JUL 10 1970 10:00 AM DATA-NAL 701

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N 001.0406 GRB 61600071 0007E18V5X10

(SCHN32) ( 23 JUN 73 )

## REFERENCE DATA

REF = 4.4119 SQ.FT. XGRP = 45.5974 INCHES  
 UREF = 19.2059 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BET/ = .000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AIRRON = -10.000  
 NACA/L = .250 LIP = 4.000

RUN NO. 82/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	C <sub>y</sub>	XCP/L	CAB
.201	-4.070	-.09980	.04090	.00000	-.10220	.03350	-.01000	-.03350	.03000	.65980	.01924
.201	-2.000	-.00200	.03810	-.00050	-.00340	.03796	-.00930	-.03360	.03200	.60620	.01864
.201	-.910	.04400	.03800	-.00020	.04400	.03872	-.00890	-.03640	.03200	.66190	.01855
.201	.090	.00660	.03880	-.00010	.09070	.03866	-.00850	-.03680	.03400	.66040	.01868
.201	1.080	.13700	.04030	-.00020	.13780	.03772	-.00820	-.03730	.03600	.66050	.01826
.201	2.120	.18320	.04240	.00050	.18460	.03554	-.00780	-.03800	.03800	.65890	.01839
.201	4.180	.27240	.04820	.00350	.27510	.02816	-.00680	-.03870	.03900	.65530	.01817
.201	6.240	.36490	.05890	.00730	.36910	.01878	-.00590	-.04060	.04200	.65620	.01830
.201	8.310	.46040	.07440	.00930	.46630	.00709	-.00470	-.04230	.04500	.65580	.01837
.201	10.400	.56250	.09660	.00490	.57070	-.00651	-.00370	-.04390	.05000	.65680	.01933
.201	12.500	.67130	.12840	.00490	.68320	-.02007	-.00320	-.04560	.05500	.65750	.01993
.201	14.530	.77650	.16670	.00330	.79340	-.03391	-.00200	-.04710	.05900	.65840	.02104
.201	16.670	.89110	.21660	.00070	.91380	-.04819	.00070	-.04750	.05900	.65970	.02389
.201	18.700	.96750	.30200	-.00680	1.03220	-.05000	.00070	-.03940	.04600	.66340	.02764
.201	20.820	1.08750	.38130	-.01750	1.15240	-.03030	.00070	-.03750	.00400	.66540	.03121
.201	22.890	1.17000	.45810	-.01980	1.25940	-.03456	.01150	-.03760	.04400	.66560	.03303
.201	24.900	1.22000	.53150	-.02000	1.32890	-.03294	.01010	-.03740	.03600	.66610	.03548
.201	26.900	1.25000	.60000	-.02000	1.45100	-.03050	.00000	-.03740	.00000	.66600	.03700
.201	28.900	1.26000	.66000	-.02000	1.57000	-.02750	.00000	-.03740	.00000	.66600	.03800

NO. 701 DADS QCB 816C507F1J348/E18V5310

(B54063) (23 1 1 73

## REFERENCE DATA

S/D = 4.4119 50.171. 100P = 43.5974 INCHES  
 U/D = 13.9999 INCHES 100P = .0700 INCHES  
 D/D = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = 1.000 SCALE

## PARAMETRIC DATA

BETA = .000 B. FLAP = .011000  
 PLEWER = .000 RFLARE = .0100  
 ELEVON = .000 ALURON = 15.000  
 NACZ/L = .250 LTP = 4.000

RUN NO. 83/ 0 50/L = 1.44 GRADIENT INTERVAL = -3.00/ 5.00

WACH	ALPHA	CL	COF	CLM	ON	CAF	CLN	CS	CY	TOP/L	CAS
.201	-4.240	-0.00990	.050990	-0.00320	-0.03330	.04445	.01270	.03480	-0.01100	.64740	.01760
.201	-3.700	.00140	.04880	-0.00260	-0.00020	.04862	.01160	.05580	-0.03500	3.07890	.01771
.201	-3.000	.04760	.04880	-0.00210	.04680	.04955	.01100	.05550	-0.05900	.01610	.01774
.201	-2.000	.09210	.04920	-0.00110	.09220	.04909	.01040	.05720	-0.06100	.66460	.01798
.201	-1.000	.13450	.05130	-0.00070	.13750	.04867	.00990	.05760	-0.06170	.66190	.01741
.201	0.000	.18100	.05370	-0.00010	.18340	.04685	.00880	.05910	-0.06170	.65920	.01736
.201	4.100	.23100	.05590	.00410	.23400	.04004	.00750	.05850	-0.06000	.65440	.01754
.201	5.240	.28100	.05890	.00640	.28780	.03014	.00600	.05870	-0.06000	.65350	.01759
.201	6.300	.33600	.06190	.00870	.34400	.01847	.00440	.06080	-0.07600	.65550	.01707
.201	10.480	.56450	.11030	.00150	.57520	.00628	.00240	.06430	-0.08300	.65630	.01877
.201	12.400	.67150	.14710	-0.00050	.68540	-0.0625	-0.00130	.06320	-0.08100	.66010	.01934
.201	14.550	.77100	.18090	-0.01150	.78270	-0.02132	-0.00260	.06360	-0.08600	.66070	.02113
.201	16.600	.87400	.21100	-0.02000	.88400	-0.01547	-0.00100	.06700	-0.09600	.66150	.02299
.201	18.600	.97600	.24000	-0.02610	.98450	-0.01547	-0.00950	.05790	-0.07800	.66320	.02453
.201	20.770	1.07500	.26100	-0.01760	1.14550	-0.02761	-0.01210	.05650	-0.07800	.66550	.02659
.201	22.850	1.16840	.28660	-0.01020	1.23560	-0.02123	-0.01400	.05120	-0.07200	.66290	.02657
.201	24.900	1.27000	.31130	-0.00100	1.26310	-0.01136	-0.01590	.04270	-0.05800	.65770	.04045
.201	GRADIENT	.04144	.06107	.07665	.04429	-0.00032	-0.00267	.00748	-0.00184	-0.11281	-0.00019







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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 (A-B 816X 507F1J3W87E18V5X10

(RCH086) ( 23 JUN 73 )

## REFERENCE DATA

SPDF = 4.4119 54. FT. DRP = 45.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRDF = 37.9343 INCHES DRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B. FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AIRLON = 10.000  
 MAXVL = .250 LIP = 4.000

RUN NO. 86/ 0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CLF	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.0270	.04050	.00300	-1.0530	.03306	.00900	.03730	-.03500	.67050	.01664
.201	-2.010	-.00920	.03780	.00280	-.01050	.03746	.00840	.03810	-.03800	.75760	.01663
.201	-.970	.04020	.03780	.00340	.03930	.03847	.00820	.03870	-.04000	.62890	.01662
.201	.050	.06510	.03810	.00340	.06510	.03806	.00770	.03930	-.04200	.64530	.01665
.201	1.080	.13280	.03950	.00390	.13330	.03696	.00720	.03990	-.04300	.64930	.01692
.201	2.120	.17650	.04160	.00440	.17790	.03500	.00670	.04030	-.04500	.65110	.01653
.201	4.180	.26470	.04780	.00550	.26750	.02842	.00580	.04090	-.04800	.65250	.01676
.201	6.780	.35970	.05750	.00570	.36380	.01778	.00480	.04180	-.05100	.65430	.01698
.201	8.330	.45540	.07280	.00650	.46120	.00806	.00390	.04200	-.05500	.65480	.01745
.201	10.460	.56070	.09620	.00480	.56890	-.07665	.00250	.04310	-.05700	.65690	.01842
.201	12.510	.67400	.12910	.00300	.68590	-.02001	.00060	.04410	-.06000	.65830	.01952
.201	14.580	.78700	.17000	-.00070	.80450	-.03338	-.00020	.04440	-.06400	.66050	.02085
.201	16.670	.89450	.22540	-.00480	.92150	-.04073	.00220	.04650	-.07400	.66180	.02344
.201	18.730	.99390	.30110	-.01300	1.03790	-.03409	-.00470	.04140	-.05900	.66450	.02670
.201	20.810	1.09310	.38030	-.02090	1.15690	-.03296	-.00720	.03850	-.05500	.66640	.02879
.201	22.850	1.16380	.45190	-.01540	1.24950	-.03704	-.00800	.03450	-.05100	.66440	.03310
.201	24.900	1.20570	.51380	-.00220	1.31000	-.04168	-.00990	.02940	-.04400	.66060	.03926
.201	GRADIENT	.04472	.09369	.00032	.04538	-.05059	-.00040	.00746	-.00160	-.00615	.00001

NR.701.0405 ORB 818C50773J3687V5110

(RCH087) ( 73 09 73 )

## REFERENCE DATA

SFL = 4.4119 56.17. XMRP = 43.5974 INCHES  
 LRF = 19.0009 INCHES YMRP = .0000 INCHES  
 B-OF = 37.9349 INCHES ZMRP = 18.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B-FLAP = .00000  
 RUCCER = .000 RFLARE = .000  
 ELEVON = .000 AIRLEN = .000  
 NACKVL = .250 LIP = 4.000

RUN NO. 87/0 RVVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MOON	ALPH	CL	QVF	CLM	ON	CAF	CLN	CSL	CY	W/L	CAB
.201	-4.075	-11.470	.03170	.00750	-1.11680	.02349	-.00020	-.00070	.00100	.00120	.01403
.201	-2.010	-.02000	.02930	.00750	-.02100	.02652	-.00020	-.00070	.00700	.00450	.01513
.201	-1.970	.02770	.02840	.00770	.02720	.02884	-.00030	-.00090	.00100	.00100	.01524
.201	.060	.07550	.02890	.00790	.07600	.02885	-.00020	-.00110	.00000	.00120	.01479
.201	1.070	.12110	.03000	.00750	.12160	.02772	-.00020	-.00100	.00100	.00180	.01513
.201	2.140	.16170	.03230	.00810	.16190	.02634	-.00020	-.00090	.00100	.00180	.01541
.201	4.160	.19170	.03750	.00750	.26370	.01836	-.00030	-.00110	.00100	.00180	.01618
.201	6.260	.26250	.04780	.00630	.36340	.00757	-.00030	-.00120	.00100	.00180	.01654
.201	8.360	.43420	.06310	.00610	.46300	-.00383	-.00030	-.00110	.00100	.00180	.01703
.201	10.410	.52450	.08590	.00640	.57040	-.01792	-.00040	-.00140	.00100	.00180	.01730
.201	12.460	.60770	.11150	.00380	.68200	-.03170	-.00110	-.00150	.00100	.00180	.01830
.201	14.510	.76540	.15170	.00120	.79980	-.04475	-.00140	-.00150	.00100	.00180	.01845
.201	16.560	.92540	.20770	.00030	.92450	-.05930	.00040	.00260	.00000	.00140	.01936
.201	18.740	1.10000	.28170	-.01470	1.04420	-.04901	.00140	.00120	.00000	.00140	.01953
.201	20.800	1.31000	.37320	-.02910	1.16350	-.04330	.00130	.00130	.00000	.00140	.01974
.201	22.680	1.51000	.48170	-.02420	1.26840	-.04740	.00120	.00130	.00000	.00140	.01995
.201	24.340	1.62000	.51920	-.01150	1.35940	-.05039	.00130	.00130	.00000	.00140	.02079
.201	.64584	.00000	.00000	.00000	.04632	-.00080	-.00000	.00000	.00000	.00000	.00000

NR. T01.0405 ORB 816C507F1J5W6TV5X10

(R00000) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50-FT. XREF = 43.5974 INCHES  
 LREF = 19.2729 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = 4.000 B-FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLRON = .000  
 NACK/L = .250 LIP = 4.000

RUN NO. 00/ 0 RM/L = 1.44 GRADIENT INTERVAL = -3.00/ 3.00

WACH	ALPHA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	CCP/L	CAB
.201	-4.080	-.11840	.02690	.00500	-.12020	.02039	.00350	-.00300	-.08700	.87490	.01601
.201	-1.990	-.02370	.02600	.00510	-.02460	.02315	.00350	-.00350	-.08500	.73510	.01555
.201	-.940	.02360	.02520	.00510	.02320	.02358	.00350	-.00400	-.08600	.58070	.01587
.201	.040	.07360	.02560	.00500	.07300	.02543	.00340	-.00460	-.08500	.63540	.01502
.201	1.070	.12070	.02710	.00490	.12120	.02485	.00360	-.00480	-.08400	.64540	.01562
.201	2.190	.16950	.02860	.00440	.17030	.02222	.00380	-.00490	-.08500	.65950	.01842
.201	4.190	.26270	.03500	.00460	.25460	.01570	.00400	-.00575	-.08400	.65330	.01528
.201	6.760	.35770	.04600	.00460	.36060	.07660	.00450	-.00660	-.08500	.65530	.01579
.201	8.300	.45680	.06100	.00440	.46060	-.00557	.00420	-.00810	-.08500	.65650	.01659
.201	10.400	.56370	.08400	.00370	.56960	-.01913	.00400	-.00820	-.08300	.65760	.01855
.201	12.470	.67250	.11410	.00170	.68110	-.03385	.00410	-.00940	-.08500	.65900	.01976
.201	14.560	.77960	.15200	.00110	.79260	-.04690	.00400	-.01010	-.08500	.65940	.02095
.201	16.620	.89340	.20200	-.00270	.91390	-.06210	.00500	-.01160	-.08300	.66100	.02301
.201	18.710	.99560	.26340	-.01350	1.03200	-.05032	.00690	-.00850	-.08000	.66480	.02600
.201	20.790	1.09000	.36270	-.01960	1.14760	-.04795	.00820	-.00820	-.08600	.66620	.02937
.201	22.850	1.17590	.44220	-.02100	1.25340	-.04928	.01060	-.01070	-.08600	.66600	.03137
.201	24.920	1.23570	.51610	-.01500	1.35010	-.05284	.01130	-.00840	-.09300	.66400	.03542
.201	GRADIENT	.04624	.07172	-.00006	.04669	-.00058	.00006	-.00035	.00032	-.00436	.00006

MR.701.0405 ORB 816C507F1J3487V5X10

(RUND93) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLRON = .000  
 NACX/L = .250 LIP = 4.000

RUN NO. 89/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CLM	CN	CA	CLN	CSL	CY	V <sup>2</sup> /L	CAB
.201	-12.070	.09380	.01070	-.00490	.09580	.01055	-.00630	.00510	.25600	.67650	.02041
.201	-9.090	.09170	.01640	-.00350	.09120	.01625	-.00630	.00610	.19200	.67570	.01787
.201	-3.040	.09960	.01820	-.00150	.08980	.01806	-.00580	.00540	.17100	.66600	.01732
.201	-4.030	.08070	.02590	.00490	.08080	.02579	-.00350	.00260	.08700	.65800	.01500
.201	-2.020	.07680	.02830	.00750	.07680	.02816	-.00150	.00080	.04300	.62560	.01496
.201	.000	.07750	.02870	.00720	.07700	.02857	-.00110	-.00110	.00100	.63610	.01373
.201	1.030	.07200	.02770	.00710	.07310	.02761	.00320	-.00330	-.02900	.62480	.01564
.201	4.010	.06200	.02600	.00590	.07230	.02596	.00320	-.00450	-.08300	.63510	.01554
.201	6.040	.07160	.01990	.00010	.07160	.01983	.00620	-.00680	-.17700	.65900	.01692
.201	12.060	.07330	.01140	-.00480	.07330	.01136	.00730	-.00730	-.26800	.68360	.02046
GRADIENT	-.00104	-.00002	-.00000	-.00000	-.00103	-.00001	.00082	-.00091	-.02107	-.00033	.00003

MR.701.0405 ORB 816C507F1J3487V5X10

(RUND90) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLRON = .000  
 NACX/L = .250 LIP = 4.000

RUN NO. 90/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CLM	CN	CA	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.33020	.02740	-.00520	.33130	-.00269	-.00890	.01140	.26100	.66580	.02225
.201	-9.090	.32630	.03430	-.00180	.32800	.00447	-.00780	.00860	.17700	.66190	.01729
.201	-4.030	.31550	.04020	.00440	.31780	.01142	-.00460	.00400	.08800	.65490	.01502
.201	-2.030	.31330	.04210	.00630	.31590	.01350	-.00240	.00140	.04300	.65270	.01545
.201	.000	.31240	.04250	.00660	.31490	.01395	-.00020	-.00090	.00100	.65230	.01652
.201	2.010	.31020	.04160	.00680	.31270	.01325	.00160	-.00360	-.05900	.65210	.01585
.201	4.010	.30900	.03970	.00500	.31140	.01151	.00410	-.00610	-.08500	.65410	.01609
.201	6.040	.31020	.03430	.00030	.31210	.00600	.00790	-.01070	-.17500	.65980	.01792
.201	12.060	.31180	.02860	-.00510	.31310	.00025	.00900	-.01390	-.26400	.66580	.02103
GRADIENT	-.00060	-.00007	-.00007	.00006	-.00079	-.00000	.00106	-.01125	-.02142	-.00011	.00013

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NR.701.0405 QXB B16C507F1J3M87V5X10

(R040511) (23 JUN 73)

## REFERENCE DATA

SPRT = 4.4119 SQ.FT. XPRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACYL = .250 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 91/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.57480	.07540	-.06670	.57880	-.02944	-.01010	.01840	.26900	.66410	.02184
.201	-8.030	.57210	.08000	-.07250	.57710	-.02435	-.02810	.01280	.17400	.66150	.01909
.201	-4.030	.56540	.08340	.00380	.57120	-.01992	-.00470	.00650	.08700	.65780	.01779
.201	-2.020	.56350	.08320	.00530	.56980	-.01777	-.00290	.00290	.04400	.65860	.01812
.201	.000	.56350	.08650	.00560	.56980	-.01671	-.00240	-.00120	.00300	.65840	.01832
.201	2.010	.56480	.08650	.00480	.57110	-.01693	.00160	-.00450	-.03900	.65690	.01878
.201	4.020	.56250	.08410	.00350	.56830	-.01982	.00420	-.00810	-.08400	.65790	.01859
.201	6.030	.56050	.07950	-.00100	.56570	-.02276	.00870	-.01420	-.17500	.66080	.01890
.201	8.090	.56210	.07720	-.00580	.56680	-.02342	.01010	-.01780	-.27000	.66350	.02108
.201	12.070	.56224	.00012	-.00007	-.00021	.00017	.00109	-.00182	-.02111	.00004	.00011

## REFERENCE DATA

SPRT = 4.4119 SQ.FT. XPRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACYL = .250 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 92/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.83330	.19910	-.01400	.84780	-.06195	-.00790	.02120	.26200	.66590	.02338
.201	-8.040	.83630	.17310	-.00820	.85400	-.05860	-.00770	.01550	.17000	.66340	.02131
.201	-4.030	.84820	.18160	-.00550	.86590	-.05314	-.00540	.00690	.08700	.66220	.02079
.201	-2.010	.84850	.18380	-.00370	.86670	-.05115	-.00290	.00290	.04500	.66150	.02185
.201	.000	.84800	.18410	-.00290	.86650	-.05069	.00020	-.00170	.00300	.66100	.02242
.201	2.010	.84300	.18050	-.00100	.86050	-.05276	.00210	-.00580	-.03800	.66240	.02268
.201	4.000	.83580	.17590	.00000	.85210	-.05527	.00440	-.01080	-.06000	.66000	.02220
.201	6.090	.82990	.17250	-.00460	.84570	-.05679	.00740	-.01920	-.16600	.66190	.02048
.201	8.2940	.82940	.17140	-.01260	.84500	-.05783	.00970	-.02400	-.26900	.66590	.02205
.201	12.070	.82940	.00073	-.00068	-.00187	-.00029	.00120	-.00218	-.02077	-.00027	.00018

NR.701.0405 ORB B16C507F1J3487V5X10

(RCN093) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XPRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YPRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZPRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALURON = .000  
 NACA/L = .250 LIP = .000

RUN NO. 93/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	BETA	CL	CD	CLM	ON	CAF	CLN	CSL	CY	YCP/L	CAB
.201	-12.090	.90370	.27540	-.02960	1.02330	-.03145	-.07890	.01720	.27100	.62300	.01349
.201	-8.060	.99360	.28900	-.02370	1.03270	-.04918	-.00920	.01440	.17500	.77400	.01531
.201	-1.050	.99910	.29000	-.01710	1.03930	-.04615	-.00340	.00260	.09000	.54810	.01586
.201	-2.040	1.00430	.29360	-.01740	1.04540	-.04434	-.00110	.00570	.03700	.62790	.01591
.201	.000	1.00400	.29370	-.01530	1.04520	-.04439	.00150	.00140	.00200	.63760	.01569
.201	2.010	1.00200	.28900	-.01490	1.04170	-.04810	.00400	-.00320	-.04300	.54300	.01546
.201	4.000	.99150	.28480	-.01360	1.03200	-.04930	.00700	-.00800	-.00700	.64900	.01670
.201	6.000	.97840	.27840	-.01710	1.01610	-.05026	.00390	-.01440	-.17400	.66600	.01665
.201	12.060	.91270	.27800	-.02790	1.01050	-.04834	.01260	-.01630	-.12700	.66970	.01548
GRADIENT	-.01667	.00074	.00047	.00047	-.00097	-.00050	.00148	-.00209	-.02124	-.00016	.00014

NR.701.0405 ORB B16C507F1J3487V5X10

(RCN094) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XPRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YPRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZPRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -10.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 ALURON = .000  
 NACA/L = .250 LIP = .000

RUN NO. 94/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CL	CD	CLM	ON	CAF	CLN	CSL	CY	YCP/L	CAB
.201	-4.090	.11630	.03260	.00770	-.12040	.02429	.01210	-.00290	-.12900	.62300	.01349
.201	-2.065	-.02330	.02940	.00790	-.02440	.02652	.01190	-.00900	-.02800	.77400	.01531
.201	-.940	.02340	.02680	.00770	.02490	.02923	.01190	-.00780	-.02700	.54810	.01586
.201	.000	.07200	.02920	.00780	.07210	.02915	.01190	-.00740	-.02700	.62790	.01591
.201	1.010	.12000	.03070	.00750	.12080	.02946	.01180	-.00710	-.02600	.63760	.01569
.201	2.010	.16640	.03180	.00790	.16750	.02718	.01170	-.00640	-.02400	.54300	.01546
.201	4.110	.26460	.03980	.00770	.26680	.02018	.01170	-.00640	-.02400	.64900	.01670
.201	6.340	.36030	.04890	.00640	.36340	.00687	.01170	-.00570	-.02300	.65300	.01719
.201	8.340	.46100	.06410	.00620	.46340	-.00348	.01150	-.00460	-.02300	.65300	.01665
.201	10.370	.56190	.06560	.00640	.56610	-.01696	.01120	-.00460	-.02300	.65300	.01982
.201	12.470	.67410	.11870	.00370	.68180	-.02979	.01090	-.00460	-.02200	.65900	.01982
.201	14.560	.78730	.15930	.00170	.80200	-.04416	.01090	-.00460	-.02100	.65900	.01982
.201	16.640	.90430	.20690	-.00340	.92620	-.04916	.01090	-.00460	-.02000	.65900	.01982
.201	18.750	1.00360	.29260	-.01440	1.04380	-.04721	.01340	-.00460	-.01900	.66100	.02321
.201	20.830	1.10540	.37490	-.02510	1.16650	-.04275	.01360	-.00460	-.01800	.66490	.02662
.201	22.840	1.18520	.44940	-.02330	1.26670	-.04649	.01550	-.00220	-.02400	.66600	.03370
.201	24.910	1.25610	.51960	-.01370	1.33990	-.04964	.01680	-.00130	-.02700	.66360	.03784
GRADIENT	.04638	.00078	.00078	-.00000	.04690	-.00053	-.00005	.00030	.00052	-.00127	.00004

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL T01

(R0ND95) ( 23 JUN 73 )

NR. T01.0405 ORB B16C507F1J3487V5R5X10

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES BETA = 4.000 B.FLAP = -18.000  
LREF = 19.2999 INCHES YGRP = .0000 INCHES RUDDER = -7.500 RFLARE = .000  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES ELEVON = .000 AILRON = .000  
SCALE = .0405 SCALE NACX/L = .250 LIP = 4.000

PARAMETRIC DATA

RUN NO. 95/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.090	-1.1960	.02990	.00470	-.12160	.02122	.01520	-.01040	-.11600	.67390	.01578
.201	-1.990	-.02310	.02650	.00440	-.02400	.02569	.01510	-.01060	-.11400	.72620	.01584
.201	-.980	.02250	.02610	.00460	.02200	.02645	.01500	-.01070	-.11300	.58430	.01585
.201	.040	.06970	.02650	.00430	.06980	.02642	.01520	-.01060	-.11300	.63760	.01574
.201	1.090	.11850	.02790	.00450	.11900	.02566	.01500	-.01080	-.11100	.64630	.01561
.201	2.110	.16570	.02940	.00460	.16660	.02325	.01530	-.01060	-.11200	.65070	.01586
.201	4.150	.26090	.03560	.00450	.26280	.01674	.01560	-.01070	-.11200	.65370	.01603
.201	6.240	.35630	.04590	.00450	.35920	.00689	.01580	-.01120	-.11000	.65550	.01609
.201	8.340	.45830	.06160	.00430	.46240	-.00552	.01530	-.01180	-.10800	.65660	.01666
.201	10.400	.56280	.08400	.00290	.56870	-.01906	.01520	-.01140	-.10800	.65810	.01875
.201	12.460	.67290	.11500	.00130	.68190	-.03288	.01500	-.01170	-.10700	.65930	.01994
.201	14.540	.77930	.13270	.00000	.79270	-.04792	.01530	-.01200	-.10700	.65990	.02109
.201	16.620	.89350	.15270	-.00330	.91420	-.06110	.01630	-.01350	-.10700	.66130	.02302
.201	18.720	.99420	.28450	-.01400	1.03290	-.04970	.01820	-.00970	-.11200	.66480	.02601
.201	20.780	1.08830	.36200	-.02000	1.14590	-.04775	.01950	-.00890	-.11300	.66620	.02932
.201	22.870	1.17000	.44050	-.02080	1.24920	-.04904	.02270	-.01060	-.11100	.66590	.03136
.201	24.930	1.22740	.51420	-.01330	1.32980	-.05114	.02270	-.00720	-.12000	.66350	.03513
GRADIENT		.04618	.00072	-.00001	.04663	-.00054	.00005	-.00003	.00051	-.00394	.00002

(R0ND96) ( 23 JUN 73 )

NR. T01.0405 ORB B16C507F1J3487V5R5X10

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES ALPHA = .000 B.FLAP = -18.000  
LREF = 19.2999 INCHES YGRP = .0000 INCHES RUDDER = -7.500 RFLARE = .000  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES ELEVON = .000 AILRON = .000  
SCALE = .0405 SCALE NACX/L = .250 LIP = 4.000

PARAMETRIC DATA

RUN NO. 96/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.09370	.01150	-.00400	.09370	.01145	.00250	.00030	.23500	.67330	.02020
.201	-8.010	.06600	.01960	.00000	.06600	.01969	.00470	-.00030	.14700	.66000	.01693
.201	-4.020	.07820	.02690	.00540	.07830	.02678	.00830	-.00390	.06000	.63520	.01548
.201	-2.010	.07260	.02930	.00770	.07290	.02924	.01050	-.00570	.01500	.62180	.01509
.201	.000	.07260	.02970	.00780	.07270	.02968	.01190	-.00730	-.02600	.62140	.01526
.201	2.020	.07150	.02640	.00670	.07150	.02835	.01300	-.00870	-.06700	.62590	.01553
.201	4.020	.07040	.02670	.00390	.07040	.02665	.01510	-.01060	-.11200	.63980	.01565
.201	6.040	.07230	.02030	-.00030	.07230	.02025	.01620	-.01200	-.19500	.66170	.01747
.201	12.070	.07360	.01290	-.00450	.07360	.01248	.01900	-.01040	-.27900	.68210	.02064
GRADIENT		-.00094	-.00006	-.00020	-.00086	-.00006	.00060	-.00082	-.02116	.00066	.00006

MR.701.0403 ORB B16C507E1J3M67V9R3X10

(R00027) ( 23 JUN 73 )

## REFERENCE DATA

SPR = 4.4119 98.FT. XGRP = 43.9974 INCHES  
 UGRP = 19.2999 INCHES YGRP = .0000 INCHES  
 BGRP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = -7.500 R.FLAP = .000  
 ELEVON = .000 AILRON = .000  
 MACYL = .250 LIP = 4.000

RUN NO. 97/ 0 PAVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAC	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.000	.32710	.02800	-.00420	.32830	-.00179	.00030	.00780	.24300	.66400	.00131
.201	-6.000	.32190	.03510	.00070	.32330	.00579	.00220	.00470	.15500	.00910	.01753
.201	-4.000	.31400	.04130	.00330	.31550	.01261	.00730	-.00100	.06300	.01360	.03332
.201	-2.000	.31000	.04300	.00710	.31220	.01465	.00660	-.00360	.01800	.01170	.01513
.201	.000	.31030	.04290	.00790	.31290	.01397	.01180	-.00610	-.02300	.01150	.01583
.201	2.000	.30830	.04270	.00690	.31190	.01447	.01300	-.00820	-.04300	.01000	.01594
.201	4.000	.30270	.04090	.00410	.31130	.01232	.01550	-.01100	-.11000	.01520	.01912
.201	6.000	.30000	.03490	-.00030	.31230	.00634	.01760	-.01470	-.13700	.06280	.03480
.201	12.000	.31000	.02990	-.00370	.31290	.00151	.01690	-.01590	-.24100	.06430	.02169
.201	GRADIENT	-.00000	-.00010	-.00015	-.00060	-.00004	.00099	-.00123	-.00140	.00018	.00006

## REFERENCE DATA

SPR = 4.4119 98.FT. XGRP = 43.9974 INCHES  
 UGRP = 19.2999 INCHES YGRP = .0000 INCHES  
 BGRP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = -7.500 R.FLAP = .000  
 ELEVON = .000 AILRON = .000  
 MACYL = .250 LIP = 4.000

RUN NO. 98/ 0 PAVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAC	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.000	.37280	.07530	-.00690	.37590	-.00898	-.00110	.00430	.12500	.66430	.02212
.201	-6.000	.36930	.08090	-.00120	.37470	-.00349	.00150	.01000	.11900	.66070	.01859
.201	-4.000	.36470	.08510	.00430	.37080	-.01816	.00700	.00310	.06300	.63710	.01704
.201	-2.000	.36180	.08590	.00630	.36790	-.01878	.00940	-.00040	.01900	.63590	.01776
.201	.000	.36310	.08680	.00610	.36930	-.01810	.01130	-.00440	-.00200	.63610	.01718
.201	2.000	.36410	.08670	.00470	.37030	-.01638	.01280	-.00790	-.00600	.63700	.01899
.201	4.000	.36290	.08480	.00330	.36900	-.01602	.01500	-.01110	-.00800	.63780	.01880
.201	6.000	.36350	.08380	-.00210	.36830	-.02209	.01810	-.01690	-.01560	.64130	.01838
.201	10.000	.36200	.07870	-.00380	.36700	-.02390	.01900	-.01830	-.02400	.66240	.01317
.201	12.000	.36190	.07880	-.00390	.36690	-.02373	.01910	-.02110	-.03100	.66350	.02149
.201	GRADIENT	-.00000	.00001	-.00020	-.00005	.00001	.00097	-.00179	-.00109	.00012	.00023



NP.701.0405 OPS B16C507E1J3487V305X10

(RDN099) ( 23 JUN 73 )

## REFERENCE DATA

SPR = 4.4119 IN/FT. DRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES TREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 99/ 0 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.83490	.10910	-.01420	.84930	-.04121	-.00010	.02320	.24000	.66900	.02312
.201	-8.050	.83990	.17470	-.00720	.85590	-.03738	.00130	.01400	.13300	.66300	.02142
.201	-4.020	.84620	.19210	-.00390	.86410	-.03204	.00490	.00490	.04300	.66160	.02100
.201	-2.010	.84790	.18430	-.00320	.86570	-.02931	.00990	.00390	.02100	.66130	.02203
.201	.000	.84790	.18430	-.00290	.86570	-.02915	.01200	-.00380	.02200	.66100	.02233
.201	2.020	.84190	.18100	-.00190	.85930	-.02190	.01310	-.00790	-.02200	.66030	.02270
.201	4.020	.83600	.17730	-.00100	.85370	-.01407	.01590	-.01220	-.10300	.66020	.02214
.201	6.050	.83090	.17330	-.00590	.84690	-.00535	.01690	-.02030	-.18300	.66230	.02074
.201	12.090	.82080	.17320	-.01280	.84680	-.00624	.01620	-.02330	-.28300	.66340	.02246
GRADIENT		-.00124	-.00064	.00043	-.00137	-.00027	.00106	-.00210	-.02103	-.00019	.00015

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLAGE = .000  
 ELEVON = .000 AILRON = .000  
 NACA/L = .250 LIP = 4.000

## REFERENCE DATA

SPR = 4.4119 IN/FT. DRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES TREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

NP.701.0405 OPS B16C507E1J3487V305X10

(RDN100) ( 23 JUN 73 )

## PARAMETRIC DATA

ALPHA = 18.000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLAGE = .000  
 ELEVON = .000 AILRON = .000  
 NACA/L = .250 LIP = 4.000

RUN NO. 100/ 0 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.98770	.27380	-.02990	1.02920	-.03179	-.00120	.01690	.25900	.67030	.02697
.201	-8.050	.99360	.26640	-.02410	1.03300	-.04747	.00010	.01330	.15900	.66840	.02376
.201	-4.040	.99900	.26100	-.01970	1.03990	-.04467	.00670	.00720	.06300	.66340	.02498
.201	-2.020	1.00410	.25400	-.01620	1.04330	-.04371	.01140	.00370	.01700	.66330	.02877
.201	.000	1.00570	.25370	-.01490	1.04690	-.04456	.01410	.00000	-.02900	.66310	.02701
.201	2.000	1.00410	.25190	-.01360	1.04480	-.04614	.01970	-.00440	-.06600	.66330	.02768
.201	4.010	.99820	.24780	-.01380	1.03810	-.04779	.01850	-.00920	-.11000	.66310	.02604
.201	8.050	.98290	.24040	-.01900	1.02090	-.04911	.01760	-.01580	-.19200	.66630	.02431
.201	12.080	.97340	.23820	-.02600	1.01430	-.04525	.02260	-.01990	-.29800	.67020	.02600
GRADIENT		.00005	-.00044	.00018	-.00008	-.00043	.00139	-.00203	-.02132	-.00004	.00015



DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-NAL 701

(PDM102) ( 23 JUN 75 )

NR.701.0405 OPB 816C507F1J3487V5R5X10

## REFERENCE DATA

SREF = 4.4119 56.FT. XREF = 43.9974 INCHES  
 UNIT = 10.2999 INCHES YREF = .0000 INCHES  
 SREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 102/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = 4.000 B.FLAP = -16.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .290 LIP = 4.000

WACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.080	-1.2070	.03510	.00920	-.112290	.02841	.02390	-.01520	-.13500	.60710	.01092
.201	-2.000	-.02590	.03180	.00840	-.02640	.03092	.02420	-.01520	-.13400	.77490	.01694
.201	-.980	.02190	.03190	.00840	.02140	.03172	.02450	-.01520	-.13400	.51960	.01693
.201	.040	.07100	.03190	.00860	.07100	.03141	.02490	-.01500	-.13400	.61650	.01703
.201	1.080	.11770	.03280	.00840	.11890	.03244	.02520	-.01500	-.13400	.63420	.01704
.201	2.110	.16490	.03440	.00810	.16570	.02827	.02550	-.01480	-.13400	.64240	.01703
.201	4.170	.26060	.04100	.00810	.26290	.02191	.02590	-.01450	-.13300	.64880	.01874
.201	6.290	.35690	.05170	.00790	.35030	.01162	.02600	-.01470	-.13200	.65200	.01712
.201	8.300	.45000	.06630	.00770	.45880	.00004	.02590	-.01460	-.13100	.65390	.01713
.201	10.370	.55680	.08870	.00700	.56570	-.01346	.02590	-.01390	-.12900	.65590	.01838
.201	12.470	.66880	.11990	.00500	.67890	-.02793	.02590	-.01350	-.12800	.65730	.01937
.201	14.620	.78460	.15980	.00200	.79990	-.04337	.02590	-.01340	-.12600	.65860	.02179
.201	16.820	.89240	.20780	-.00060	.91460	-.05627	.02770	-.01440	-.12930	.66020	.02335
.201	19.780	.99590	.26920	-.01090	1.03390	-.04470	.02890	-.01500	-.13400	.66370	.02815
.201	20.780	1.06870	.36690	-.01610	1.14600	-.04295	.03040	-.01590	-.13500	.66500	.02973
.201	22.870	1.16870	.44470	-.01720	1.24960	-.04458	.03260	-.01610	-.13400	.66490	.03243
.201	24.920	1.25140	.51920	-.01020	1.33550	-.04828	.03560	-.01720	-.14100	.66270	.03603
.201	GRADIENT	.04625	.00070	-.00012	.04679	-.00537	.00625	.00009	.00019	-.00696	-.00001

NR.701.0405 OPB 816C507F1J3487V5R5X10

(PDM103) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 56.FT. XREF = 43.9974 INCHES  
 UNIT = 10.2999 INCHES YREF = .0000 INCHES  
 SREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -16.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .290 LIP = 4.000

RUN NO. 103/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.09190	.01620	-.00090	.09190	.01808	.01220	-.00420	-.21500	.66210	.01991
.201	-6.080	.06490	.02500	.00420	.06490	.02494	.01440	-.00590	.12800	.64190	.01747
.201	-4.020	.07370	.03290	.01060	.07370	.03283	.01870	-.00880	.03700	.60690	.01648
.201	-2.030	.07230	.03510	.01240	.07230	.03503	.02020	-.01030	-.02400	.59820	.01633
.201	.000	.06970	.03580	.01280	.06970	.03572	.02160	-.01190	-.04600	.59410	.01629
.201	1.990	.06970	.03490	.01100	.06970	.03443	.02300	-.01390	-.06800	.60340	.01659
.201	3.990	.07170	.03190	.00820	.07170	.03119	.02390	-.01390	-.13400	.61880	.01707
.201	6.090	.07320	.02480	.00280	.07330	.02451	.02480	-.01570	-.21500	.64880	.01832
.201	12.070	.07390	.01690	-.00180	.07360	.01642	.02370	-.01440	-.29900	.66880	.02129
.201	GRADIENT	-.00053	-.00019	-.00033	-.00033	-.00019	.00060	-.00081	-.02126	.00126	.00007

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**W. S. J. D. J. D. J. D.**

[illegible]

**S. : / S. : - MCDLXVI N. : 10**

Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1900	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100

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Page 10

11. 9	2	202	71.06
11. 9	2	202	69.53
11. 9	2	202	68.00
11. 9	2	202	66.47
11. 9	2	202	64.94
11. 9	2	202	63.41
11. 9	2	202	61.88
11. 9	2	202	60.35
11. 9	2	202	58.82
11. 9	2	202	57.29
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11. 9	2	202	54.23
11. 9	2	202	52.70
11. 9	2	202	51.17
11. 9	2	202	49.64
11. 9	2	202	48.11
11. 9	2	202	46.58
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11. 9	2	202	38.93
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11. 9	2	202	6.80
11. 9	2	202	5.27
11. 9	2	202	3.74
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11. 9	2	202	-0.85
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11. 9	2	202	-6.97
11. 9	2	202	-8.50
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11. 9	2	202	-11.56
11. 9	2	202	-13.09
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11. 9	2	202	-20.74
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11. 9	2	202	-26.86
11. 9	2	202	-28.39
11. 9	2	202	-29.92
11. 9	2	202	-31.45
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11. 9	2	202	-34.51
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11. 9	2	202	-42.16
11. 9	2	202	-43.69
11. 9	2	202	-45.22
11. 9	2	202	-46.75
11. 9	2	202	-48.28
11. 9	2	202	-49.81
11. 9	2	202	-51.34
11. 9	2	202	-52.87
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11. 9	2	202	-55.93
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11. 9	2	202	-62.05
11. 9	2	202	-63.58
11. 9	2	202	-65.11
11. 9	2	202	-66.64
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U.S. DEPARTMENT OF JUSTICE

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**TOP SECRET**

Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

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DATE	DESCRIPTION	AMOUNT	BALANCE
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Year	Population	Area	Population	Area
1900	4,419	20.87	1900	4,419
1910	10,700	10.03	1910	10,700
1920	27,420	10.03	1920	27,420

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Year	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	





DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAL 701

PAGE 75

NP.701.0405 155 B16C50711JMB7110

(PDM110) (23 JUN 75)

## REFERENCE DATA

SREF = 4.4119 54.07. 100P = 43.9974 INCHES  
 UREF = 19.2799 INCHES 100P = .0000 INCHES  
 BREF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0005 SCALE

ALPHA = 10.000 B.FLAP = -18.000  
 ELEVON = .000 AILRON = .000  
 MACYL = .250 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 110/ 0 BNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CF	CLM	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.P01	-12.070	.54350	.08170	-.00110	.57080	-.02127	.04090	.00990	.13800	.68070	.02364
.P01	-8.050	.54350	.08420	.00280	.57180	-.01893	.02680	.00590	.08300	.63820	.01915
.P01	-4.020	.54470	.08150	.00580	.57280	-.01794	.01360	.00310	.03700	.62640	.01819
.P01	-2.010	.54520	.08000	.00640	.57150	-.01705	.00700	.00150	.01900	.63590	.01514
.P01	.000	.54550	.06690	.00650	.57150	-.01622	.00040	-.00080	.00000	.65590	.01460
.P01	1.990	.54560	.06680	.00550	.57150	-.01660	-.00590	-.00240	-.01700	.65620	.01622
.P01	4.010	.54420	.06670	.00550	.57080	-.01616	-.01250	-.00400	-.03700	.65680	.01677
.P01	6.040	.54490	.06500	.00190	.57100	-.01795	-.00510	-.00110	-.08000	.65870	.02045
.P01	12.070	.54030	.06270	-.00220	.56610	-.01935	-.03870	-.00860	-.13400	.66140	.02509
GRADIENT	-.00025	.00015	.00015	-.00005	-.00020	.00000	-.00325	-.00090	-.00017	.00003	.00011

## REFERENCE DATA

SREF = 4.4119 54.07. 100P = 43.9974 INCHES  
 UREF = 19.2799 INCHES 100P = .0000 INCHES  
 BREF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0005 SCALE

ALPHA = 15.000 B.FLAP = -18.000  
 ELEVON = .000 AILRON = .000  
 MACYL = .250 LIP = 4.000

## PARAMETRIC DATA

NP.701.0405 155 B16C50711JMB7110

(PDM111) (23 JUN 75)

RUN NO. 111/ 0 BNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CF	CLM	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.P01	-12.070	.83090	.17870	-.01080	.84840	-.00081	.04370	.01720	.12900	.66450	.02336
.P01	-8.050	.83340	.17850	-.00290	.85070	-.00190	.02720	.01250	.08300	.66100	.02142
.P01	-4.050	.84360	.18190	-.00180	.86160	-.00137	.01320	.00340	.04300	.66070	.01918
.P01	-2.010	.84570	.18200	-.00120	.86350	-.00190	.00700	.00190	.02400	.66050	.01933
.P01	.000	.84810	.18280	.00070	.86410	-.00129	.00040	-.00150	.00400	.65990	.01871
.P01	2.000	.84400	.18150	.00050	.86170	-.00184	-.00560	-.00480	-.01500	.65960	.01947
.P01	4.020	.85040	.18030	.00190	.85410	-.00088	-.01250	-.00790	-.03400	.65910	.01983
.P01	6.040	.82940	.17840	-.00190	.84690	-.00071	-.02580	-.01470	-.07300	.66080	.02289
.P01	12.070	.82810	.17950	-.00910	.84580	-.04932	-.04190	-.01900	-.12500	.66380	.02707
GRADIENT	-.00082	-.00018	.00015	.00045	-.00094	.00005	-.00316	-.00166	-.00060	-.00019	.00004

NR.701.0405 ORB 816C507F1J3M87X10

(RDN112) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 34.71. 106P = 43.5574 INCHES  
 LREF = 19.2999 INCHES 116P = .0000 INCHES  
 BREF = 37.9349 INCHES 216P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 16.000 B.FLAP = -16.000  
 ELEVON = .000 AILRON = .000  
 MACVL = .250 LIP = 4.000

RUN NO. 112/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.06960	.28900	-.02370	1.02060	-.04026	.04300	.01330	.14100	.66930	.02613
.201	-8.030	.06090	.29240	-.02010	1.03050	-.04014	.02650	.01090	.09230	.60700	.02577
.201	-4.020	.09750	.29200	-.01900	1.03640	-.04337	.01380	.00690	.04200	.510	.02398
.201	-2.040	1.00340	.29410	-.01690	1.04470	-.04342	.00600	.00390	.02000	.500	.02438
.201	-.020	1.00670	.29600	-.01480	1.04850	-.04270	.00170	.00060	.00000	.500	.02468
.201	1.990	1.01370	.29300	-.01340	1.04470	-.04454	-.00490	-.00220	-.02000	.66460	.02387
.201	4.000	.07570	.29040	-.01110	1.03750	-.04479	-.01140	-.00600	-.03600	.66360	.02338
.201	8.050	.98460	.28800	-.01360	1.02510	-.04308	-.02630	-.01170	-.08300	.66470	.02672
.201	12.090	.97370	.28790	-.02440	1.01170	-.03832	-.03920	-.01300	-.14100	.66950	.03030
GRADIENT	-.07004	-.00022	-.00022	.00036	-.00009	-.00020	-.00313	-.00155	-.01006	-.00019	-.00011

NR.701.0405 ORB 816C507F1J3M87X10

(RDN113) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 34.71. 106P = 43.5574 INCHES  
 LREF = 19.2999 INCHES 116P = .0000 INCHES  
 BREF = 37.9349 INCHES 216P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -16.000  
 ELEVON = .000 AILRON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 113/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.06960	.01780	.00050	.09970	.01770	.03920	-.01320	.11600	.66780	.02269
.201	-8.030	.08340	.02210	.00460	.08340	.02202	.02690	-.00900	.09000	.64000	.01856
.201	-4.040	.07540	.02800	.00630	.07540	.02595	.01330	-.00470	.03940	.62020	.01395
.201	-2.040	.07430	.02680	.00690	.07460	.02637	.00660	-.00280	.02000	.61690	.01320
.201	-.010	.07470	.02640	.00670	.07480	.02631	.00010	-.00030	.02200	.61900	.01369
.201	1.960	.07370	.02620	.00650	.07360	.02614	-.00630	.00140	-.01500	.61690	.01449
.201	3.990	.07330	.02530	.00760	.07330	.02542	-.01280	.00340	-.02000	.62330	.01587
.201	8.040	.07480	.02220	.00360	.07470	.02209	-.02610	.00780	-.07200	.64140	.01957
.201	12.090	.07700	.01700	-.00070	.07700	.01690	-.03900	.01280	-.11700	.66360	.02434
GRADIENT	-.00005	-.00005	-.00007	-.00009	-.00005	-.00007	-.00324	.00101	-.00461	.00039	.00026



NO. F01 0405 018 816C507F1J3487X10

(P0N113) ( 23 JUN 73 )

## REFERENCE DATA

1. 4.4119 50. FT. 1000P = 43.9974 INCHES  
 2. 19.2999 10. FT. 1000P = .0000 INCHES  
 3. 37.9349 10. FT. 1000P = 18.2000 INCHES  
 4. 0405 SCALE

## PARAMETRIC DATA

ALPHA = 5.000 B. FLAP = -18.000  
 ELEVON = .000 AILPON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 114/ 0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.P01	-12.000	.32130	.03530	.07130	.32320	.07003	.03600	-.07280	.12800	.65840	.02394
.P01	-8.030	.31720	.03930	.06320	.31940	.01041	.02360	-.07180	.08900	.65410	.01882
.P01	-4.090	.31230	.04070	.05780	.31470	.01224	.01290	-.07120	.04000	.65100	.01909
.P01	-2.020	.31100	.04170	.05690	.31390	.01341	.00640	-.07110	.02100	.64980	.01339
.P01	-.010	.31030	.04190	.05690	.31310	.01334	.00010	-.07070	.00100	.64970	.01334
.P01	1.980	.30930	.04170	.05680	.31160	.01331	-.07120	-.07040	-.01770	.64980	.01392
.P01	3.990	.30900	.04020	.05720	.31390	.07097	-.07220	-.07040	-.03900	.63190	.01373
.P01	6.040	.31140	.03830	.05900	.31390	.07097	-.07220	-.07040	-.03900	.65420	.07049
.P01	12.090	.30920	.03440	.07160	.31090	.07611	-.03790	-.01120	-.11100	.65810	.02432
GRADIENT		.00033	.00001	-.00705	-.00033	.00704	-.07312	.00011	-.07037	.00705	.07109

## REFERENCE DATA

1. 4.4119 50. FT. 1000P = 43.9974 INCHES  
 2. 19.2999 10. FT. 1000P = .0000 INCHES  
 3. 37.9349 10. FT. 1000P = 18.2000 INCHES  
 4. 0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B. FLAP = -18.000  
 ELEVON = .000 AILPON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 113/ 0 RWL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.P01	-12.000	.34310	.08400	.00440	.34000	-.01877	.03930	.07810	.13400	.63710	.02373
.P01	-8.030	.34240	.08720	.00690	.34090	-.01942	.02980	.07850	.08200	.63580	.01918
.P01	-4.090	.34280	.08690	.00910	.34080	-.01308	.01900	.07360	.03900	.63420	.01582
.P01	-2.040	.34070	.08630	.01080	.34740	-.01403	.00680	.07000	.01900	.63310	.01483
.P01	-.010	.33980	.08690	.01240	.34440	-.01320	.00050	.07000	.00100	.63330	.01441
.P01	1.990	.33940	.08940	.01090	.34680	-.01273	-.00590	-.00200	-.01800	.63330	.01484
.P01	3.970	.33780	.08680	.00980	.34490	-.01308	-.01210	-.07360	-.03390	.63370	.01627
.P01	6.030	.33650	.08740	.00700	.34310	-.01419	-.02480	-.07140	-.07700	.63390	.01981
.P01	12.080	.33110	.08480	.00380	.33730	-.01361	-.03840	-.07930	-.12100	.63740	.02440
GRADIENT		-.00035	.00004	.00003	-.00034	.00014	-.00313	-.00094	-.07111	-.07004	.00007

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL 701

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NR. 701.0405 ORB B16C507F1J3487X10

(RDN116) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 15.000 B.FLAP = -15.000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 116/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

ACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.100	.82810	.17980	-.00300	.84800	-.04917	.04280	.01870	.12500	.5120	.02736
.201	-8.040	.82960	.18100	.00370	.84770	-.04823	.02890	.01410	.07400	.6940	.02244
.201	-4.030	.83720	.18430	.00620	.85590	-.04712	.01470	.00870	.07600	.63750	.01895
.201	-2.020	.83990	.18610	.00370	.85910	-.04618	.00830	.00310	.01700	.63750	.01888
.201	-.010	.83610	.18640	.00650	.85540	-.04488	.01200	-.00040	.00000	.63720	.01811
.201	1.980	.83440	.18750	.00750	.85350	-.04549	-.01450	-.00420	-.0210	.63680	.01843
.201	3.990	.83070	.18450	.00890	.84970	-.04528	-.01180	-.00790	-.07300	.63520	.01891
.201	6.020	.82240	.18180	.00590	.84100	-.04551	-.02610	-.01490	-.07300	.63740	.02253
.201	12.030	.81120	.17980	.00390	.82970	-.04423	-.04180	-.01990	-.11900	.63550	.02559
GRADIENT	-.07792	-.00002	-.00002	.00036	-.00750	.00022	-.00328	-.00182	-.00893	-.00014	-.02702

NR. 701.0405 ORB B16C507F1J3487X10

(RDN117) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 18.000 B.FLAP = -18.000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 117/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

ACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.96030	.28520	-.01020	1.00110	-.03768	.04400	.01230	.13100	.68360	.02780
.201	-8.030	.97700	.29650	-.01030	1.02040	-.03283	.02820	.00820	.08300	.66360	.02375
.201	-4.030	.99170	.30110	-.01000	1.03380	-.03321	.01590	.00630	.03400	.66340	.02220
.201	-2.020	.99940	.30440	-.01250	1.04420	-.03257	.00950	.00410	.01400	.66420	.02315
.201	.000	1.00210	.30390	-.01120	1.04660	-.03404	.00350	.00170	-.00600	.66380	.02418
.201	1.980	.99820	.30200	-.01010	1.04230	-.03448	-.00280	-.00070	-.02700	.66350	.02386
.201	4.000	.99320	.29850	-.00770	1.03650	-.03604	-.00810	-.00230	-.04700	.66260	.02319
.201	8.040	.97970	.28620	-.00640	1.02040	-.04141	-.02310	-.01010	-.08800	.66220	.02478
.201	12.030	.95250	.26110	-.00810	.99240	-.03901	-.03840	-.01310	-.13800	.66290	.02789
GRADIENT	.00009	-.00036	-.00036	.00035	-.00002	-.00036	-.00297	-.00110	-.01012	-.00011	.00013

PARAMETRIC DATA

REFERENCE DATA

SRFP = 4.4119 SQ. FT. XSRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YSRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZSRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = 4.000 B.FLAP = -10.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AIRLON = .000  
 NACX/L = .000 LTP = 4.000

RUN NO. 118/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CI	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-.12290	.03310	.00870	-.12510	.02830	.02180	-.01370	-.12800	.66490	.01773
.201	-2.010	-.02930	.03170	.00850	-.03040	.03069	.02230	-.01360	-.12900	.76070	.01781
.201	-.960	.01870	.03090	.00870	.01820	.03119	.02230	-.01380	-.12700	.46830	.01678
.201	.060	.06650	.03230	.00830	.06650	.03223	.02260	-.01370	-.12700	.61490	.01746
.201	1.070	.11420	.03160	.00890	.11480	.02947	.02310	-.01370	-.12700	.63190	.01925
.201	2.100	.16190	.03330	.00890	.16310	.02930	.02330	-.01360	-.12700	.64020	.01745
.201	4.170	.25810	.04120	.00970	.26040	.02226	.02370	-.01350	-.12670	.64750	.01802
.201	6.230	.33290	.05120	.00860	.35640	.01253	.02390	-.01390	-.12400	.65120	.01838
.201	8.310	.43330	.06730	.00900	.45820	.00103	.02360	-.01400	-.12200	.65290	.01871
.201	10.390	.53380	.08990	.01010	.56290	-.01147	.02410	-.01360	-.12300	.65330	.01910
.201	12.480	.63820	.11890	.01010	.66840	-.02623	.02410	-.01350	-.12400	.65450	.01955
.201	14.560	.77200	.15820	.00960	.78700	-.04038	.02440	-.01370	-.12400	.65560	.02047
.201	16.640	.86750	.20790	.00610	.90980	-.05509	.02500	-.01420	-.12300	.65750	.02281
.201	18.710	.98090	.28950	-.00490	1.02190	-.04061	.02770	-.00670	-.13300	.66170	.02354
.201	20.800	1.07800	.37140	-.01100	1.13970	-.03376	.02860	-.00680	-.13400	.66340	.02975
.201	22.840	1.11100	.44640	-.00880	1.23680	-.03681	.03050	-.00830	-.13200	.66250	.03500
.201	24.920	1.19620	.51220	.00080	1.30060	-.03970	.03160	-.00570	-.13900	.65970	.03767
GRADIENT		.04633	.00075	.00005	.04688	-.00048	.00024	.00002	.00028	-.00579	.00002

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1J3UB7V58X10

(RM110) ( 23 JUN 73 )

## REFERENCE DATA

WREF = 4.4119 58. FT. XREF = 43.5974 INCHES  
LREF = 19.2999 INCHES YREF = .0000 INCHES  
BREF = 37.9149 INCHES ZREF = 16.2000 INCHES  
SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = 4.000 B. FLAP = -16.000  
RUDDER = -7.500 RFLARE = .000  
ELEVON = .000 AILRON = .000  
NACX/L = .000 LIP = 4.000

RUN NO. 119/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	CP/L	CAB
.201	-4.070	-1.1210	.03000	.00450	-.12360	.02128	.01450	-.05190	-.10599	.67310	.01826
.201	-2.530	-.02870	.02700	.00450	-.02760	.02599	.01460	-.01000	-.10800	.71930	.01821
.201	-.990	.02110	.02670	.00480	.02060	.02706	.01450	-.01010	-.10700	.57630	.01627
.201	.060	.06990	.02680	.00500	.06960	.02572	.01480	-.01010	-.10700	.63410	.01630
.201	1.070	.11770	.02790	.00460	.11820	.02570	.01490	-.01020	-.10700	.64370	.01702
.201	2.110	.16550	.02950	.00500	.16650	.02334	.01500	-.01020	-.10600	.64900	.01736
.201	4.160	.22000	.03560	.00530	.26190	.01659	.01530	-.01040	-.10700	.65260	.01735
.201	6.230	.35530	.04680	.00540	.33830	.00788	.01500	-.01070	-.10500	.65440	.01736
.201	8.320	.45510	.06260	.00530	.45940	-.00399	.01440	-.01120	-.10700	.65370	.01809
.201	10.350	.55520	.08550	.00680	.56250	-.01618	.01470	-.01130	-.10100	.65560	.01818
.201	12.460	.66380	.11490	.00700	.67290	-.03104	.01470	-.01190	-.10100	.65620	.01946
.201	14.540	.77230	.15390	.00640	.78590	-.04588	.01500	-.01230	-.10100	.65700	.02072
.201	16.630	.89520	.20410	.00290	.91130	-.05937	.01540	-.01320	-.10200	.65890	.02264
.201	18.710	.93560	.26960	-.00800	1.02640	-.04194	.01940	-.00400	-.11700	.66280	.02654
.201	20.780	1.07720	.36570	-.01340	1.13690	-.04039	.01900	-.00700	-.11200	.66420	.02952
.201	22.850	1.19060	.44140	-.01180	1.23170	-.04017	.02060	-.00870	-.11000	.66340	.03237
.201	24.890	1.19790	.50660	-.00140	1.29990	-.04481	.02190	-.00710	-.11500	.66030	.03730
GRADIENT	.04642	.00066	.07009	.04687	-.00059	-.00010	.00010	-.00006	.00028	-.00356	.00023

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL 701

VR, 701, 0403 08B 816C907E1J3M97V5X10

(RDM120) ( 23 JUN 73 )

PARAMETRIC DATA

BETA = 4.000 B. FLAP = -18.000  
 WUDER = .000 RFLARE = .000  
 ELEVON = .000 AIRPON = .000  
 MAC/L = .000 LIP = 4.000

REFERENCE DATA

REF = 4.4119 50. FT. ORP = 43.9974 INCHES  
 LREF = 19.2999 INCHES ORP = .0000 INCHES  
 SREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0403 SCALE

RUN NO. 120/ 0 ENL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.050	-1.1210	.05070	.06690	-1.12400	.02202	.00300	-.00220	-.58300	.60010	.01428
.201	-1.990	-.02740	.02700	.05590	-.02840	.02600	.00330	-.00320	-.06300	.74740	.01700
.201	-.990	.01880	.02900	.01000	.01840	.02311	.00240	-.00310	-.08100	.46460	.01661
.201	.000	.06940	.03000	.01070	.06940	.03015	.00260	-.00360	-.09700	.60440	.01896
.201	1.110	.11640	.05000	.00810	.11690	.02777	.00340	-.00420	-.08200	.63480	.01693
.201	2.110	.15290	.07080	.00840	.11630	.02472	.00370	-.00450	-.08300	.64160	.01815
.201	4.190	.25940	.03790	.06820	.26190	.01883	.00390	-.00550	-.08200	.64860	.01759
.201	6.270	.35650	.04760	.07840	.35950	.00831	.00430	-.00540	-.08200	.65160	.01859
.201	8.340	.45470	.06450	.08700	.45920	-.00213	.00410	-.00760	-.08100	.65370	.01819
.201	10.410	.55520	.08710	.09960	.56190	-.01477	.00420	-.00820	-.08100	.65360	.01867
.201	12.480	.66140	.11620	.09990	.67080	-.02355	.00420	-.00920	-.08000	.65460	.01967
.201	14.590	.77190	.15520	.09890	.78620	-.04416	.00430	-.01090	-.08000	.65590	.02015
.201	16.690	.88590	.20530	.09470	.90760	-.05730	.00470	-.01160	-.08000	.65810	.02131
.201	18.740	.98390	.26120	-.00690	1.02490	-.04034	.00270	-.00300	-.09300	.66240	.02384
.201	20.820	1.07790	.30790	-.01140	1.13780	-.03920	.00810	-.00580	-.09900	.66350	.02835
.201	22.880	1.14920	.44240	-.00590	1.25090	-.03930	.00970	-.00710	-.09300	.66270	.03128
.201	24.940	1.19470	.55600	-.00050	1.29750	-.04332	.01090	-.00630	-.09400	.66010	.03614
.201			.00087	.00015	.04624	-.00039	.00012	-.00039	.00007	-.00388	.00016

GRADIENT

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 008 B16C507F1J3612687V3X10

(R0M121) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 54.17. 108P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 108P = .0000 INCHES  
 PREF = 37.0349 INCHES 108P = 16.2000 INCHES  
 SCALE = 15405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -1.0000  
 RUDDER = .000 S.FLAP = .0000  
 ELEVON = .000 AILRON = .0000  
 NAVAL = .000 CLIP = .0000

RUN NO. 121/ 0 RUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.70

Y-ION	UFWA	QL	QDF	CLM	CN	CAF	CLN	CSL	CY	CF/L	CAB
.201	-4.090	-1.0340	.06000	.00160	-1.0940	.05317	.00020	-1.00090	.00000	.64390	.01391
.201	-2.000	-1.01500	.05700	.00240	-1.01720	.05641	.00020	-1.00080	.00000	.71120	.01804
.201	-1.990	.03180	.05590	.00320	.03090	.05642	.00020	-1.00070	.00000	.7140	.01242
.201	.050	.07680	.05600	.00370	.07690	.05653	.00010	-1.00160	.00100	.64240	.01120
.201	1.080	.12240	.05600	.00390	.12350	.05364	.00010	-1.00090	.00100	.64390	.01629
.201	2.100	.16270	.05760	.00370	.17030	.05140	.00010	-1.00090	.00200	.65210	.01954
.201	4.100	.31300	.06210	.00390	.2624	.04320	.00000	-1.00000	.00100	.64390	.01614
.201	6.290	.35120	.07160	.00410	.35890	.03277	.00000	-1.00100	.00100	.65180	.01548
.201	8.290	.44760	.06630	.00490	.45560	.02079	.00000	-1.00130	.00200	.65610	.01607
.201	10.360	.59030	.10620	.00610	.5670	.00726	-1.00010	-1.00090	.00200	.65600	.01543
.201	12.470	.63710	.11590	.00640	.67110	-1.00825	-1.00030	-1.00110	.00200	.65650	.01765
.201	14.540	.74100	.17240	.00720	.77990	-1.02425	-1.00030	-1.00140	.00400	.65660	.01985
.201	16.640	.67790	.22310	.00140	.90490	-1.03765	.00040	-1.00110	.00300	.65940	.02116
.201	18.710	.97890	.31420	-1.01290	1.02790	-1.01632	.00370	.00480	-1.00000	.66430	.02652
.201	20.800	1.07430	.38810	-1.01690	1.14270	-1.01981	.00210	-1.00050	.00000	.66330	.03071
.201	22.890	1.13910	.45690	-1.01430	1.22710	-1.02289	.00300	-1.00020	.00000	.66420	.03462
.201	24.890	1.17520	.51790	-1.01190	1.28370	-1.02358	.00790	.00130	-1.00200	.66090	.04123
GRADIENT	.04440	.00000	.00015	.00000	.04536	-1.00122	-1.00003	-1.00002	.00039	-1.00313	.00003

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ADJUSTED SOURCE FORCE DATA-NAL 701

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NR.701.0405 GR8 B16C50/F1612N47V5X9

(RDH122) ( 23 JUN 73 )

## REFERENCE DATA

SRDF = 4.419 SQ.FT. YMRP = 43.5974 INCHES  
 LRDF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 0.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ATTURON = .000

RUN NO. 122/ 0 PVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAD
.201	-4.090	-1.0430	.05380	.00090	-1.0790	.04615	.00000	-1.00090	.00000	.66500	.01870
.201	-2.030	-1.0910	.05100	.00080	-1.01090	.05066	.00000	-1.00100	.00000	.66680	.01534
.201	-1.010	.03570	.04340	.00010	.00480	.09007	.00000	-1.00100	.00000	.65790	.01642
.201	.050	.08340	.05000	.00030	.00340	.04995	.00000	-1.00120	.00000	.65840	.01543
.201	1.050	.12860	.04990	.00000	.12950	.04756	.00010	-1.00110	.00100	.65990	.01647
.201	2.100	.17550	.05230	-1.00040	.17730	.04579	.00010	-1.00110	.00100	.66090	.01546
.201	4.170	.20990	.05570	-1.00070	.27230	.03691	.00010	-1.00120	.00100	.66100	.01647
.201	6.210	.35990	.06650	-1.00220	.36490	.02707	.00000	-1.00120	.00200	.66220	.01906
.201	8.290	.45730	.07880	-1.00210	.46380	.01195	.00000	-1.00120	.00100	.66160	.01898
.201	10.370	.56050	.10060	-1.00130	.56950	-1.00192	-1.00010	-1.00140	.00300	.66080	.01666
.201	12.480	.66960	.13080	-1.00390	.68200	-1.01682	-1.00020	-1.00100	.00300	.66210	.01800
.201	14.530	.78570	.17100	-1.00940	.80350	-1.03166	.00040	-1.00190	.00300	.66420	.01898
.201	16.630	.90660	.23310	-1.02020	.91540	-1.03609	.00290	.00190	-1.00200	.66770	.02222
.201	18.790	1.01010	.31210	-1.03140	1.05680	-1.02821	.00250	.00230	-1.00200	.67060	.02770
.201	20.780	1.09960	.38190	-1.03390	1.16360	-1.03319	.00250	-1.00200	.00400	.67040	.03016
.201	22.660	1.17950	.45720	-1.03340	1.26450	-1.03695	.00260	-1.00410	.00600	.65940	.03326
.201	24.930	1.23700	.52920	-1.02410	1.35480	-1.04162	.00300	-1.00470	.00800	.66640	.04183
.201	GRADIENT	.04509	.00034	-1.00021	.04594	-1.00114	.00002	-1.00003	.00016	-1.00133	-1.00001





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TABULATED SOURCE FORCE DATA-MAL 701

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NP, M1, C455 098 816C507FW10TE18V539

IRON1241 ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 INCHES  
 SREF = 19.0000 INCHES  
 SREF = 37.0000 INCHES  
 SCALE = 0.005 SCALE

## PARAMETRIC DATA

BETA = 0.000  
 FLARE = 0.000  
 FLARE = 0.000  
 FLARE = 0.000  
 FLARE = 0.000

RUN NO. 1241 D RUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WADA	ALPHA	CL	COF	CLM	ON	CAF	CLN	CSL	CY	YCP/L	CAB
.201	-4.000	-0.0000	.02890	-0.04070	-0.02240	.02880	-0.00000	-0.00120	.00000	1.23160	.01834
.201	-1.920	.09410	.02880	-0.04040	.09300	.03191	-0.00040	-0.00190	.00100	.81980	.01885
.201	-1.890	.13890	.03040	-0.04060	.13890	.03200	-0.00000	-0.00210	.00100	.76340	.01878
.201	-1.190	.18260	.03270	-0.04030	.18270	.03227	-0.00040	-0.00220	.00100	.75910	.01843
.201	1.140	.22890	.03330	-0.04010	.22960	.03093	-0.00040	-0.00270	.00100	.72270	.01878
.201	2.170	.27420	.03390	-0.04020	.27390	.02887	-0.00060	-0.00300	.00200	.71230	.01827
.201	4.290	.36170	.04890	-0.04020	.37120	.02142	-0.00090	-0.00390	.00300	.69800	.01831
.201	6.710	.45790	.06240	-0.04100	.46400	.01146	-0.00090	-0.00390	.00400	.69170	.01785
.201	8.360	.55640	.06920	-0.04090	.56220	.00159	-0.00040	-0.00380	.00300	.68610	.01840
.201	10.480	.66330	.10700	-0.04290	.67170	-0.0159	-0.00090	-0.00380	.00400	.68290	.01890
.201	12.560	.79000	.14390	-0.04790	.79290	-0.02970	-0.00090	-0.00390	.00200	.68160	.02076
.201	14.640	.89800	.19000	-0.0490	.91780	-0.04274	-0.00090	-0.00390	.00200	.68140	.02119
.201	16.790	1.02390	.26040	-0.06720	1.05550	-0.04553	.00210	-0.00390	-0.00100	.68280	.02310
.201	18.890	1.10990	.34390	-0.07450	1.15100	-0.03248	.00270	-0.00390	-0.00100	.68300	.03159
.201	20.960	1.20470	.42570	-0.07910	1.27550	-0.03605	.00330	-0.00390	.00600	.68220	.03461
.201	22.990	1.27690	.49690	-0.07810	1.37930	-0.03759	.00390	-0.00390	.01270	.68040	.03932
.201	25.000	1.31710	.56320	-0.06690	1.43420	-0.04028	.00420	-0.00390	.01370	.67920	.04458
.201		.04458	.06245	.00007	.04515	-0.00085	-0.00000	-0.0029	.00032	-0.05518	-0.00001

GRADIENT

NR.701,0405 CDB B16C90771687E164579

(PDB127) (23 JUN 75)

## SOURCE DATA

SDEF = 4.4119 SALT. DRIP = 43.9974 INCHES  
 UDEF = 19.2999 INCHES DRIP = .0000 INCHES  
 BDEF = 37.8349 INCHES DRIP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETER DATA

BETA = .0000  
 BUDGER = .0000  
 ELEMN = .0000

FUN NO. 125/ 0 NVAL = 1.44 GRADIENT INTERVAL = -.5.00/ 5.70

NO	ALPHA	CL	COF	CLM	ON	CAF	CLN	CSL	CY	ICPL	CAB
.201	-4.760	-1.10870	.02210	.01000	-1.11070	.02434	.00490	.01340	-.01600	.59270	.01978
.201	-2.090	-.01450	.02890	.01000	-.01590	.02802	.00490	.01370	-.01900	.59100	.01981
.201	-.970	.03100	.02120	.01190	.03090	.02970	.00490	.01360	-.01800	.59170	.01974
.201	.030	.07790	.02920	.01170	.07890	.02913	.00390	.01360	-.02100	.59100	.01974
.201	1.190	.12320	.03140	.01140	.12390	.02907	.00390	.01360	-.02000	.59470	.01982
.201	2.110	.16740	.03310	.01090	.16890	.02891	.00320	.01390	-.02070	.59420	.01924
.201	4.140	.25070	.03900	.01200	.25300	.02829	.00290	.01370	-.02090	.59220	.01951
.201	6.290	.33340	.04910	.01210	.33340	.01078	.00190	.01370	-.02090	.59470	.01955
.201	8.390	.44690	.06290	.01290	.45190	-.00303	.00160	.01370	-.02090	.59000	.01957
.201	10.490	.55990	.08490	.01290	.55790	-.01603	.00110	.02010	-.02090	.59200	.01973
.201	12.470	.66370	.11670	.01340	.67320	-.02963	.00170	.02190	-.02090	.59540	.01993
.201	14.960	.76690	.15990	.00110	.85110	-.04324	.00160	.02110	-.03200	.69340	.01996
.201	16.000	.86000	.20210	-.00060	.93410	-.04778	.00190	.02120	-.03300	.68370	.02000
.201	18.700	1.00000	.24790	-.01390	1.04570	-.05396	.00140	.02190	-.03900	.66630	.02001
.201	20.000	1.09000	.30000	.02990	1.15990	-.04835	-.00190	.01610	-.02970	.66710	.03111
.201	22.000	1.17490	.44000	-.00000	1.29660	-.04382	-.00210	.01070	-.01700	.66690	.03340
.201	24.930	1.25420	.58990	-.01190	1.39940	-.04661	-.00190	.00740	-.01300	.66420	.03960
.201	GRADIENT	.04453	.01190	.00034	.04974	-.00744	-.00029	.00070	-.00974	-.01531	.00003

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TABULAR SOURCE FORCE DATA-JUAL T01

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10.701.0403 CAB 315000/16.1349

(000170) (23 JUN 73)

## REFERENCE DATA

REF = 4.4119 50 FT.    REF = 41.5374 INCHES  
 REF = 19.2999 INCHES    REF = 1000 INCHES  
 REF = 37.9349 INCHES    REF = 15.2700 INCHES  
 SCALE = 1000 SCALE

## PARAMETRIC DATA

BETA = .000    B. FLAP = -10.000  
 RUDDER = .000    R. FLAP = .000  
 ELEVON = -5.000    AILRON = .000

EX. NO. 128/0    ENL = 1.44    GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CD	CLM	CM	CAF	CLN	COL	CY	XCP/L	CAB
.201	-4.130	-2.3020	.03350	.04350	-1.1200	.01605	-1.00200	-1.00170	.00000	.75800	.01296
.201	-2.040	-1.13500	.02720	.06370	-1.13670	.02225	-1.00010	-1.00030	.00000	.62720	.01277
.201	-1.010	-0.60850	.02510	.06450	-1.08870	.02356	-1.00020	-1.00070	.00000	.92090	.01328
.201	-1.020	-1.04350	.02400	.06450	-1.04350	.02400	-1.00020	-1.00000	.00100	1.18590	.01329
.201	1.020	.07240	.02450	.07100	-1.07670	.02419	-1.00020	-1.00090	.00000	-2.69610	.01249
.201	2.040	.05180	.02440	.06470	.05270	.02253	-1.00010	-1.00080	.00000	.01930	.01291
.201	4.120	.14440	.02780	.06470	.14500	.01711	-1.00010	-1.00110	.00100	.90080	.01248
.201	6.190	.24190	.03320	.06480	.24320	.01657	-1.00010	-1.00130	.00100	.56320	.01352
.201	8.240	.33690	.04450	.06490	.33080	-1.00394	.00100	-1.00110	-1.00100	.59170	.01294
.201	10.320	.44160	.06220	.06500	.44500	-1.01792	.00000	-1.00160	.00000	.60750	.01397
.201	12.420	.55590	.06640	.06500	.56210	-1.03125	.00000	-1.00160	.00100	.61900	.01438
.201	14.500	.67290	.12720	.06620	.68290	-1.04525	.00000	-1.00170	.00200	.63040	.01749
.201	16.580	.78930	.18230	.06750	.69850	-1.05761	.00000	-1.00170	-1.00500	.63880	.01964
.201	18.660	.89870	.25640	.06750	.91350	-1.06478	.00000	-1.00340	-1.00300	.64580	.02346
.201	20.780	1.00010	.32770	.06930	1.03130	-1.06412	.00000	-1.00200	.00000	.64960	.02594
.201	22.910	1.08140	.39990	.06950	1.15180	-1.07374	.00000	-1.00600	.00000	.65150	.02945
.201	24.900	1.16290	.48100	.06770	1.23720	-1.08337	.00000	-1.00640	.00000	.65270	.03394
.201	GRADIENT	.54555	-1.00000	.00012	.04535	.00005	.00001	-1.00004	.00009	-1.13532	-1.00000

NR. 701.0405 ORB 818C50771487E18V5X3

(RGN127) ( 23 JUN 75 )

## REFERENCE DATA

SHF = 4.4119 50-FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B. FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -10.000 AILRON = .000

RUN NO. 127/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALTA	CL	QDF	QLM	ON	CAF	QLN	CSL	CY	XCP/L	CAD
.201	-4.180	-.32930	.04260	.10720	-.33200	.01841	-.00020	-.00070	.02270	.77590	.01074
.201	-2.100	-.23590	.03310	.10750	-.23660	.02436	-.00010	-.00070	.00000	.81280	.01094
.201	-1.080	-.16890	.03020	.10720	-.16910	.02664	-.00030	-.00070	.00000	.83550	.01055
.201	-.040	-.14260	.02700	.10600	-.14260	.02686	-.00030	-.00080	.00000	.83180	.01115
.201	.970	-.09930	.02600	.10600	-.09930	.02754	-.00010	-.00070	-.00100	1.07590	.01083
.201	2.010	-.04820	.02430	.10820	-.04730	.02595	-.00010	-.00040	.00000	1.48060	.01112
.201	4.090	.04650	.02440	.10910	.04810	.02102	-.00020	-.00070	.00000	1.15390	.01116
.201	6.140	.13930	.02760	.10930	.14140	.01258	.00000	-.00050	-.00100	.38220	.01139
.201	8.230	.23730	.03510	.11060	.23980	.00096	.00000	-.00000	-.00100	.49420	.01258
.201	10.280	.33580	.04050	.11290	.33920	-.01125	.00000	-.00110	.00000	.54110	.01194
.201	12.340	.44150	.07160	.11180	.44660	-.02442	.00000	-.00110	.00000	.57010	.01320
.201	14.440	.56610	.10650	.10680	.57470	-.03814	.00030	-.00090	.00000	.59370	.01505
.201	16.520	.68280	.15670	.09810	.69890	-.04460	.00120	-.00120	-.00300	.60930	.01746
.201	18.610	.78920	.21290	.09430	.81590	-.05012	.00010	.00090	.00000	.61890	.01993
.201	20.700	.89510	.29120	.08090	.94020	-.04404	.00260	-.00130	.00000	.62910	.02260
.201	22.780	.97740	.35750	.07930	1.03950	-.04859	.00390	-.00490	.00400	.63250	.02526
.201	24.840	1.05970	.43420	.07540	1.14410	-.05131	.00500	-.00540	.00270	.63630	.02869
GRADIENT		.04559	-.00218	.00024	.04606	.00034	.00000	.00001	-.00002	-.05075	.00005

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TABULATED SOURCE FORCE DATA-NAL 701

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NO. 701, 405 OF 8 BIC/SCH/MBT/8V519

(R0M120) ( 23 JUN 73 )

## REFERENCE DATA

YOFF = 4.4119 SQ.FT.    DMRP = 43.5974 INCHES  
 LPOF = 18.2909 INCHES    YMRP = 10.70 INCHES  
 BPOF = 37.9349 INCHES    ZMRP = 18.2550 INCHES  
 SCALE = .0405 SCALE

BETA = .000    B.FLAP = -18.000  
 RUDDER = .000    PFLARE = .000  
 ELEVON = .000    AIRRON = -10.000

## PARAMETRIC DATA

RUN NO. 122/ 0    SVAL = 1.44    GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	QL	QDF	QLH	QNH	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.0330	.03440	.07440	-1.0750	.02575	-1.0700	-1.03890	.03700	.68140	.02028
.201	-2.030	-0.01420	.03240	.07620	-1.01340	.03250	-1.06870	-1.03970	.03300	.67580	.01957
.201	-0.970	.03470	.03230	.07650	.03340	.03300	-1.07090	-1.04040	.03000	.68660	.01959
.201	.060	.06120	.03290	.07670	.08120	.03277	-1.06750	-1.04100	.02770	.62930	.02023
.201	1.070	.12780	.03300	.07650	.12050	.03359	-1.06790	-1.04140	.02390	.64150	.01941
.201	2.100	.17570	.03370	.07680	.17090	.03374	-1.06870	-1.04230	.04000	.64600	.01992
.201	4.180	.26370	.04410	.07630	.26000	.03471	-1.06990	-1.04330	.04200	.65070	.01911
.201	6.240	.35070	.05470	.07670	.35000	.03444	-1.07470	-1.04440	.04400	.65400	.01977
.201	8.320	.45870	.06910	.07670	.45000	.03336	-1.08310	-1.04520	.04700	.65480	.01977
.201	10.380	.56170	.09130	.07630	.69000	.03336	-1.08190	-1.04660	.05000	.65660	.02013
.201	12.530	.67810	.11340	.07640	.91000	.03466	-1.08400	-1.04770	.05400	.65870	.02106
.201	14.590	.78090	.16630	.07620	.95000	.03371	-1.09150	-1.04790	.05600	.66130	.02177
.201	16.670	.91100	.24970	.07670	.99000	.03411	-1.09620	-1.04890	.05900	.66440	.02468
.201	18.710	.96530	.37470	.07600	1.00000	.03358	-1.09000	-1.03650	.04100	.66580	.02873
.201	20.810	1.10100	.58140	.07640	1.00000	.03462	-1.08190	-1.04100	.04800	.66760	.03332
.201	22.980	1.17850	.45510	.07650	1.00000	.03366	-1.08000	-1.04280	.04000	.66730	.03783
.201	24.930	1.23160	.52740	.07630	1.00000	.03454	-1.08000	-1.03680	.03900	.66420	.04118
.201	GRADIENT	.64528	.07616	.07677	.64535	.03427	.07640	-1.00735	.07630	-.00904	-.00010

MR. TOLSON: Yes, sir. B10C SC 771 WA 7E 10 v 3 X73

(621458) (53-24-3)

**WINDUZZ DATA**

2017	=	4,411.9	24.77	2017	=	43,5974	100%
2018	=	19,299	100%	2018	=	1,000	100%
2019	=	37,934	100%	2019	=	10,200	100%
SCALE	=		SCALE				

**PARAMETRIC DATA**

BETA =	.000	B.FLAP =	-10.000
FLAPOR =	.000	FLARE =	.000
FLAVOM =	.000	FLUM =	10.000

RUN NO. 157/0 DWL = 1.44 COEFFICIENT INTERVAL = -3.00/ 3.00

[illegible]

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-MUL F01

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10.701.0403 OPS 81653071487E18475

URON110) ( 23 JUN 73 )

POYDORKE DATA

XREF = 4.4119 INCHES  
 YREF = 15.4449 INCHES  
 ZREF = 37.9349 INCHES  
 SCALE = 1.0403 SCALE

BETA = .000  
 RFLAP = -10.000  
 RFLAP = .000  
 ALURON = 15.700

PARAMETRIC DATA

RUN NO. 1307 0 RUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	QL	QD	QW	ON	CAF	CLN	CSL	CT	PCPL	CAB
.001	-4.700	-0.07850	0.4710	-0.340	0.0000	0.4136	0.1300	0.0000	-0.0110	0.4490	0.01075
.002	-1.300	0.01000	0.4900	-0.000	0.0000	0.4596	0.1100	0.0000	-0.0100	0.7990	0.01018
.003	-1.300	0.01000	0.4900	-0.000	0.0000	0.4645	0.1100	0.0000	-0.0100	0.6700	0.01020
.004	0.000	0.00000	0.4000	-0.000	0.0000	0.4076	0.1000	0.0000	-0.0100	0.6300	0.01345
.005	1.000	0.14590	0.4000	-0.000	0.0000	0.4542	0.0900	0.0000	-0.0100	0.6300	0.01241
.006	2.100	0.14590	0.4000	-0.000	0.0000	0.4411	0.0900	0.0000	-0.0100	0.6310	0.01047
.007	4.100	0.27620	0.3700	0.000	0.0000	0.3764	0.0700	0.0000	-0.0100	0.6000	0.01050
.008	6.200	0.30740	0.3700	0.000	0.0000	0.3223	0.0500	0.0000	-0.0100	0.6000	0.01040
.009	8.300	0.40000	0.3700	0.000	0.0000	0.1631	0.0300	0.0000	-0.0100	0.6010	0.01079
.010	10.300	0.50010	0.3700	0.000	0.0000	0.0312	0.0100	0.0000	-0.0100	0.6010	0.01042
.011	12.400	0.67890	0.3400	0.000	0.0000	-0.0931	-0.0100	0.0000	-0.0100	0.6200	0.02073
.012	14.500	0.78930	0.2400	0.000	0.0000	-0.2164	-0.0100	0.0000	-0.0100	0.6300	0.02149
.013	16.600	0.94900	0.1000	0.000	0.0000	-0.3154	-0.0100	0.0000	-0.0100	0.6300	0.02400
.014	18.700	1.00000	0.0000	0.000	0.0000	-0.3757	-0.0100	0.0000	-0.0100	0.6100	0.02722
.015	20.800	1.07190	0.0000	0.000	0.0000	-0.4000	-0.0100	0.0000	-0.0100	0.6100	0.03000
.016	22.900	1.12000	0.0000	0.000	0.0000	-0.4000	-0.0100	0.0000	-0.0100	0.6200	0.03442
.017	24.900	1.15000	0.0000	0.000	0.0000	-0.4000	-0.0100	0.0000	-0.0100	0.6300	0.03983
.018	26.900	1.16000	0.0000	0.000	0.0000	-0.4000	-0.0100	0.0000	-0.0100	0.6400	0.04400

GRADIENT

(R0N133) ( 23 JUN 73 )

NR. T01.0405 ORB 816C507F1407E18V5X9

REFERENCE DATA

SREF = 4.4119 94.FT. YMRP = 43.5974 INCHES  
 LREF = 19.12999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 6. FLAP = -18.1000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 7.500 ATTORN = 7.500

RUN NO. 131/ 1 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-3.913	.03593	.03420	-.06930	.06040	.03844	.00310	.03970	-.02700	1.07190	.01369
.201	-1.920	.15.72	.03670	-.06980	.15130	.04184	.00440	.03070	-.02800	.01550	.01987
.201	-.880	.19890	.03920	-.07020	.19820	.04226	.00380	.03100	-.02800	.01720	.01973
.201	.110	.24590	.04230	-.07020	.24600	.04166	.00340	.03140	-.03000	.01820	.01937
.201	1.170	.29760	.04610	-.07010	.29150	.04011	.00280	.03150	-.03000	.01927	.01927
.201	2.120	.33310	.05040	-.06950	.33670	.03760	.00220	.03140	-.03100	.01939	.01939
.201	4.250	.42420	.06200	-.06870	.42760	.03032	.00090	.03120	-.03100	.01899	.01899
.201	5.530	.51740	.07670	-.06990	.52270	.01896	-.00010	.03070	-.03200	.01938	.01938
.201	6.400	.61830	.09800	-.07170	.62600	.00651	-.00110	.03080	-.03500	.01997	.01997
.201	10.520	.72340	.12820	-.07520	.74050	.00711	-.00260	.03270	-.03800	.02010	.02010
.201	12.590	.83240	.16820	-.07820	.85440	-.02053	.00390	.03340	-.04000	.02136	.02136
.201	14.700	.93460	.21540	-.08390	.97800	-.03394	-.00400	.03150	-.04300	.02311	.02311
.201	16.700	1.05550	.28330	-.09200	1.10190	-.03496	-.00420	.03350	-.04600	.02635	.02635
.201	18.800	1.14340	.36370	-.09570	1.20060	-.02151	-.00480	.02700	-.04000	.03154	.03154
.201	20.880	1.22600	.44050	-.09480	1.30300	-.02572	-.00500	.01910	-.02900	.03588	.03588
.201	22.940	1.28700	.51620	-.08870	1.39640	-.02654	-.00590	.01180	-.01900	.04089	.04089
.201	25.000	1.30390	.57520	-.06150	1.42370	-.03226	-.00220	.00180	.00000	.04651	.04651
GRADIENT		.04409	.03337	.02000	.04482	-.00100	-.00031	.00018	-.00056	-.03806	-.00079



DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORG B16C507F1W07E10V5X9

(RON132) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2993 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 18.0000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -7.100 ATLON = -7.500

RUN NO. 132/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAP	CLN	CEL	CY	XCP/L	CAB
.201	-4.100	-1.25690	.03990	.07590	-1.25010	.02116	-.00830	-.152710	.01900	.76240	.01285
.201	-2.080	-1.16400	.03240	.07500	-1.15510	.02045	-.00780	-.152800	.02100	.82300	.01580
.201	-1.040	-1.12070	.03020	.07570	-1.12120	.02798	-.00760	-.102840	.02200	.88420	.01567
.201	-1.040	-1.07360	.02880	.07570	-1.07370	.02876	-.00740	-.102870	.02300	1.02870	.01585
.201	1.000	-1.02550	.02810	.07590	-1.02480	.02849	-.00700	-.102900	.02400	1.175390	.01548
.201	2.040	-.02140	.02780	.07560	.02240	.02704	-.00670	-.102940	.02500	-.55070	.01568
.201	4.080	.11200	.02970	.07620	.11330	.02164	-.00690	-.103020	.02700	.41960	.01570
.201	6.170	.20780	.03510	.07610	.21040	.01259	-.00530	-.103190	.03000	.55010	.01594
.201	8.230	.30390	.04500	.07670	.30720	.00101	-.00460	-.103280	.03200	.57030	.01639
.201	10.330	.40480	.05150	.07890	.40610	-.01211	-.00410	-.103410	.03600	.59070	.01678
.201	12.390	.51380	.05740	.07800	.52060	-.02492	-.00330	-.103460	.03800	.60620	.01761
.201	14.530	.63620	.12440	.07500	.61700	-.03930	-.00190	-.103480	.03900	.61940	.01946
.201	16.610	.75440	.17930	.06360	.77420	-.04034	.00300	-.103340	.03300	.63040	.02169
.201	18.650	.85330	.24690	.05620	.89750	-.03904	.00590	-.102840	.02700	.63720	.02489
.201	20.730	.95420	.31640	.04950	1.02440	-.04195	.00680	-.103280	.03400	.64230	.02818
.201	22.780	1.05620	.38450	.04710	1.15040	-.04686	.00970	-.103450	.03670	.64460	.03274
.201	24.860	1.11450	.46240	.04660	1.20560	-.04903	.01260	-.103320	.03000	.64610	.03695
GRADIENT		.04495	-.00121	.00024	.04544	.00009	.00028	-.00037	.00097	-.07547	-.00002

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR. 701.0405 ORB B16C507F1407V5X5

(RDN133) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 DREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B. FLAP = -1.0.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ATLON = .000

## PARAMETRIC DATA

RUN NO. 133/ 0 RNVL = 1.44 GRADIENT INTERVAL = -9.00/ 5.00

MAOH	ALPHA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	PAB
.201	-4.060	-1.0080	.02830	.00720	-.11040	.02049	-.00021	-.00060	.00000	.88350	.01350
.201	-2.000	-.01340	.02550	.00760	-.01430	.02502	-.00020	-.00060	.00100	.85050	.01564
.201	-.970	.03220	.02550	.00720	.03170	.02601	-.00020	-.00070	.00100	.77830	.01550
.201	.060	.07990	.02580	.00750	.08000	.02574	-.00020	-.00070	.00000	.62700	.01591
.201	1.090	.12700	.02720	.00770	.12750	.02476	-.00020	-.00100	.00100	.61820	.01587
.201	2.100	.17240	.02950	.00740	.17340	.02325	-.00020	-.00090	.00100	.64450	.01548
.201	4.170	.26070	.03600	.00720	.26760	.01649	-.00030	-.00120	.00200	.65030	.01565
.201	6.240	.35100	.04580	.00640	.36380	.00631	-.00010	-.00150	.00100	.65360	.01585
.201	8.320	.46010	.06150	.00570	.46420	-.00595	-.00010	-.00160	.00100	.65550	.01586
.201	10.410	.56310	.08310	.00660	.56890	-.02702	-.00020	-.00210	.00200	.65580	.01651
.201	12.490	.67450	.11460	.00380	.68330	-.03406	-.00030	-.00190	.00300	.65790	.01790
.201	14.570	.79130	.15690	-.00280	.80530	-.04737	.00000	-.00200	.00200	.66120	.01975
.201	16.710	.91970	.22180	-.01430	.94460	-.05202	.00230	.00100	-.00100	.66540	.02325
.201	18.740	1.01340	.29670	-.02110	1.05500	-.04469	.00340	.00340	-.00600	.66720	.02668
.201	20.820	1.10720	.37240	-.02680	1.16730	-.04550	.00300	-.00320	.00200	.66820	.02938
.201	22.890	1.17950	.44720	-.02600	1.26050	-.04703	.00310	-.00570	.00900	.66740	.03431
.201	24.940	1.24410	.52370	-.02070	1.34890	-.04984	.00430	-.00630	.00600	.66550	.03970
.201	GRADIENT	.04547	.00094	.00000	.04553	-.00048	-.00001	-.00703	.00019	-.01124	.00001

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1487V5X9

(RDN135) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 134/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = 4.000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-.10800	.02510	.00350	-.10760	.01734	.00400	-.07230	-.07600	.67010	.01660
.201	-2.000	-.01370	.02240	.00350	-.01450	.02195	.00390	-.00320	-.07100	.74660	.01665
.201	-.970	.03370	.02900	.00350	.03330	.02334	.00400	-.00360	-.07300	.62440	.01658
.201	.090	.08050	.02320	.00350	.08050	.02313	.00420	-.00420	-.07400	.64510	.01666
.201	1.090	.12520	.02510	.00350	.12560	.02266	.00430	-.00460	-.07300	.65090	.01669
.201	2.120	.17250	.02660	.00350	.17340	.02014	.00450	-.00500	-.07400	.65310	.01719
.201	4.180	.26340	.03350	.00350	.26710	.01383	.00500	-.00590	-.07300	.65520	.01699
.201	6.250	.36010	.04380	.00310	.36270	.00433	.00520	-.00680	-.07400	.65690	.01704
.201	8.310	.45810	.05910	.00240	.46190	-.00771	.00520	-.00380	-.07200	.65820	.01733
.201	10.390	.56230	.08140	.00270	.56770	-.02135	.00530	-.00930	-.06900	.65940	.01802
.201	12.490	.67000	.11130	.00100	.67820	-.03629	.00450	-.00980	-.06900	.66180	.01971
.201	14.550	.78390	.15130	-.00400	.79670	-.05039	.00350	-.00590	-.06900	.66610	.02268
.201	16.660	.90630	.22060	-.01580	.93150	-.04848	.00350	-.00500	-.07600	.66480	.02434
.201	18.730	.99660	.28090	-.01400	1.03390	-.05438	.00750	-.00960	-.07700	.66570	.02868
.201	20.820	1.07490	.36280	-.01800	1.13360	-.04314	.00810	-.00550	-.08100	.66660	.03039
.201	22.860	1.15530	.44420	-.02290	1.23710	-.03970	.00380	-.00210	-.07960	.66460	.03338
.201	24.920	1.22010	.51610	-.01690	1.32390	-.04620	.00350	-.00044	-.08428	-.00518	.00004
.201	GRADIENT	.04902	.00100	.00003	.04542	-.00045	.00013	-.00044			

NR.7.1.0405 ORB B16C507F1487V5X9

(RDN135) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 135/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.060	.10310	.01140	-.00780	.10310	.01128	-.00610	.00470	.22200	.66060	.02196
.201	-6.020	.09660	.01740	-.00330	.09660	.01731	-.00620	.00350	.15300	.67250	.01792
.201	-4.030	.08710	.02360	.00310	.08720	.02365	-.00440	.00250	.07600	.64720	.01596
.201	-2.020	.08370	.02580	.00350	.08370	.02569	-.00250	.00110	.04000	.63710	.01563
.201	.000	.08060	.02650	.00640	.08060	.02644	-.00020	-.00060	.00300	.63120	.01561
.201	1.990	.08120	.02550	.00560	.08120	.02542	.00190	-.00230	-.03400	.63420	.01629
.201	4.010	.08070	.02370	.00300	.08070	.02358	.00410	-.00420	-.07200	.64650	.01661
.201	6.030	.08220	.01770	-.00230	.08220	.01761	.00720	-.00630	-.14700	.67010	.01904
.201	12.030	.08390	.00970	-.00750	.08390	.00965	.00860	-.00560	-.22200	.69220	.02293
.201	GRADIENT	-.00076	-.00002	.00002	-.00077	-.00002	.00107	-.00065	-.01862	-.00021	.00009

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TABULATED SOURCE FORCE DATA-NAAL T01

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NR. T01.0405 ORB B16C507F1487V5X9

(RDN136) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36. FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 136/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 B. FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

MAOH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.33710	.02740	-.00700	.33820	-.00339	-.01230	.01170	.23400	.66740	.02322
.201	-8.030	.32740	.03290	-.00210	.32910	.00295	-.01260	.00890	.15800	.66230	.01865
.201	-4.020	.31970	.03890	.00230	.32190	.00963	-.00320	.00360	.07900	.67720	.01979
.201	-2.020	.31810	.04030	.00310	.32040	.01128	-.00280	.00090	.04100	.63420	.01803
.201	.000	.31340	.04110	.00600	.31360	.01244	-.00030	-.00140	.00300	.63300	.01560
.201	2.000	.31270	.04010	.00320	.31510	.01151	.00220	-.00360	-.03570	.65400	.01588
.201	4.010	.31370	.03930	.00290	.31390	.00965	.00490	-.00630	-.07200	.63660	.01696
.201	6.040	.31640	.03320	-.00190	.31810	.00430	.01000	-.01120	-.15770	.66210	.01938
.201	12.060	.31750	.02710	-.00600	.31840	-.00190	.01290	-.01390	-.21170	.66670	.02269
GRADIENT	-.00037	-.00007	-.00007	.00006	-.00086	.00001	.00125	-.00123	-.01882	-.00008	.007008

NR. T01.0405 ORB B16C507F1487V5X9

(RDN137) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36. FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B. FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

RUN NO. 137/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.59180	.07520	-.00980	.58590	-.03107	-.01410	.01580	.24300	.66590	.02190
.201	-8.040	.57390	.07830	-.00350	.57860	-.02705	-.01120	.01240	.13700	.66220	.01917
.201	-4.020	.56780	.08280	.00180	.57340	-.02105	-.00350	.00620	.07700	.65880	.01682
.201	-2.010	.56530	.08370	.00360	.57120	-.01977	-.00280	.00230	.04100	.65760	.01677
.201	.000	.56280	.08410	.00330	.56870	-.01896	-.00010	-.00150	.00400	.65660	.01668
.201	2.000	.56460	.08360	.00460	.57070	-.01978	.00230	-.00580	-.03400	.65700	.01735
.201	4.010	.56350	.08210	.00210	.56910	-.02104	.00550	-.00940	-.07200	.65860	.01799
.201	6.040	.56560	.07790	-.00340	.57030	-.02350	.01090	-.01590	-.15400	.66210	.01974
.201	12.060	.56520	.07370	-.00870	.56920	-.02958	.01410	-.01990	-.23900	.66550	.02328
GRADIENT	-.00045	-.00007	-.00007	.00007	-.00045	.00000	.00136	-.00196	-.01858	-.00005	.00015

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TABULATED SOURCE FORCE DATA-NAL 701

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NR.701.0405 CRB 816C507F1W87V3X9

(RDN136) ( 23 JUN 73 )

## REFERENCE DATA

REF = 4.119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 136/ 0 PVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

MAOH	BETA	CL	ODF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.000	.85640	.18010	-.02360	.87330	-.05691	-.00080	.02010	.22800	.65970	.02247
.201	-8.030	.85320	.17870	-.01430	.86980	-.05742	-.00580	.01460	.14700	.66590	.02135
.201	-4.030	.85920	.18790	-.01230	.87310	-.05217	-.00210	.00690	.07200	.66510	.01986
.201	-2.020	.85760	.19000	-.01090	.87710	-.04778	.00090	.00300	.03300	.66440	.02027
.201	.000	.85860	.19200	-.01000	.87860	-.04608	.00430	.00010	-.00300	.66410	.02192
.201	1.900	.85410	.19140	-.01050	.87410	-.04550	.00720	-.00320	-.04200	.66430	.02158
.201	3.990	.85110	.19090	-.01210	.87110	-.04511	.00990	-.00570	-.08300	.66510	.02119
.201	6.040	.84170	.18160	-.01380	.85950	-.05156	.00930	-.01530	-.14900	.66570	.02179
.201	12.000	.84850	.17610	-.02160	.86460	-.05853	.01000	-.02350	-.22800	.66890	.02393
	GRADIENT	-.00096	.00037	.00004	-.00085	.00062	.00151	-.00157	-.01931	-.00001	.00020

NR.701.0405 CRB 816C507F1W87V3X9

(RDN139) ( 23 JUN 73 )

## REFERENCE DATA

REF = 4.119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 18.000 B.FLAP = -10.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

RUN NO. 139/ 0 PVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CL	ODF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.000	1.01780	.29390	-.04510	1.05810	-.04815	-.00680	.00910	.24600	.67330	.02693
.201	-8.030	1.01610	.29250	-.03320	1.05620	-.04902	-.00920	.01560	.15400	.67120	.02541
.201	-4.020	1.01740	.29350	-.02810	1.05840	-.04667	-.00450	.01010	.07400	.66880	.02430
.201	-2.020	1.01780	.29650	-.02450	1.05900	-.04613	-.00020	.00780	.03200	.66830	.02615
.201	-.010	1.01240	.29780	-.02200	1.05440	-.04295	.00000	.00370	-.00600	.66750	.02627
.201	1.970	1.00600	.29410	-.02200	1.04780	-.04243	.00690	.00070	-.04500	.66750	.02649
.201	4.000	.99740	.29420	-.02050	1.03900	-.04151	.01080	-.00490	-.08400	.66700	.02550
.201	6.040	.98070	.28830	-.02390	1.02140	-.04153	.01240	-.01230	-.13800	.66840	.02602
.201	12.000	.96480	.27850	-.02710	1.00290	-.04540	.01200	-.01800	-.23900	.66970	.02679
	GRADIENT	-.00259	-.00015	.00070	-.00250	.00070	.00168	-.00168	-.01962	-.00022	.00014

MR. TOLSON 0000 016C SC7F 1408 TV 9R 5 J3

100-441491-100-441493

**RECEIVED DATA**

STEP =	4.4119	50.171	STEP =	43.9974	100ES
LAST =	3.2999	100ES	THP =	.0000	100ES
PHI =	37.9349	100ES	ZHP =	10.2700	100ES
SCALE =	.0005	SCALE			

PARADETIC DATA

BETA =	.000	2. FLAP =	-10.000
SLIDER =	-7.500	FLAPS =	.000
ELEVON =	.000	AILEON =	.000

RUN NO. 146/0 ROL = 1.44 GRADIENT INTERVAL = -5.50/ 5.50

[illegible]

DATE 27 SEP TABULATED SOURCE FORCE DATA-NAL F01

(GRN141) (23 JUN 73)

NR.F01.0405 008 B1650771W75519

REFERENCE DATA

Y-REF = 4.4119 36.17. XREF = 43.9974 INCHES  
 Z-REF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = 4.0000 B.FLAP = -18.0000  
 P.DDER = -7.9500 FLAPES = .0000  
 ELEVON = .0000 AILRON = .0000

PARAMETRIC DATA

PUN NO. 141/ 0 RNUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	QDF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.080	-1.0700	.02140	.03370	-1.0820	.01379	.01350	-.00980	-.10300	.67230	.02191
.201	-1.980	-.01310	.01670	.06370	-.01370	.01832	.01590	-.00990	-.10100	.75630	.02198
.201	-.940	.03370	.01980	.07350	.03350	.01943	.01570	-.01000	-.10100	.62100	.02228
.201	.080	.07800	.01910	.06350	.07890	.01907	.01590	-.01000	-.10100	.64390	.02249
.201	1.100	.12710	.02110	.06350	.12750	.01854	.01590	-.01000	-.10000	.64990	.02270
.201	2.110	.17270	.02270	.06320	.17340	.01834	.01610	-.01000	-.09900	.65330	.02283
.201	4.170	.26670	.02590	.06350	.26750	.01818	.01630	-.01000	-.09800	.65500	.02293
.201	6.250	.36170	.03070	.06350	.36390	.01802	.01640	-.01000	-.09700	.65670	.02307
.201	8.320	.45910	.03490	.06310	.46130	.01194	.01630	-.01270	-.09600	.65790	.02302
.201	10.420	.56380	.03740	.06290	.56590	.02294	.01650	-.01270	-.09500	.65930	.02333
.201	12.480	.67590	.04000	.06120	.67790	.04117	.01610	-.01340	-.09300	.66150	.02426
.201	14.560	.78670	.04700	.06340	.78940	.05548	.01590	-.01200	-.09000	.66500	.02568
.201	16.670	.90780	.05500	.06150	.91190	.07388	.02280	-.00760	-.08500	.66900	.02962
.201	18.710	.99810	.06410	.06400	.10320	.09561	.01590	-.01000	-.08100	.66480	.03290
.201	20.790	1.07320	.07450	.06150	1.12910	.09564	.02160	-.01000	-.07700	.66370	.03723
.201	22.880	1.14290	.08390	.06240	1.24190	.09435	.01590	-.01000	-.07300	.66670	.04074
.201	24.980	1.22470	.09920	.06160	1.32530	.09436	.01700	-.00310	-.06440	.66440	.04333
.201	GRADIENT	.04536	.00100	-.00033	.04593	-.00044	.00210	-.00016	.00046	-.00371	.00008

(GRN142) (23 JUN 73)

NR.F01.0405 008 B1650771W75519

REFERENCE DATA

Y-REF = 4.4119 36.17. XREF = 43.9974 INCHES  
 Z-REF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = .0000 B.FLAP = -18.0000  
 P.DDER = -7.9500 FLAPES = .0000  
 ELEVON = .0000 AILRON = .0000

PARAMETRIC DATA

PUN NO. 142/ 0 RNUL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	QDF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.10360	.00510	-.00680	.10360	.05498	.00020	.00040	.20300	.68370	.02835
.201	-8.020	.09350	.01340	-.00110	.09350	.01332	.00190	.00010	.19000	.66430	.02340
.201	-4.030	.08470	.02080	.00480	.08470	.02074	.00720	-.00320	.03100	.63980	.02083
.201	-2.020	.06120	.02260	.00700	.06120	.02258	.00950	-.00300	.01200	.67960	.02057
.201	.000	.07640	.02270	.00760	.07690	.02267	.01190	-.00670	-.02400	.62310	.02090
.201	2.010	.07790	.02190	.00600	.07790	.02183	.01310	-.00820	-.00800	.63250	.02127
.201	4.000	.06040	.01970	.00360	.06040	.01966	.01500	-.01010	-.09900	.64380	.02204
.201	6.030	.06190	.01290	-.00110	.06190	.01289	.01670	-.01090	-.17000	.66500	.02350
.201	8.030	.06370	.00490	.00360	.06370	.01483	.01820	-.00960	-.24000	.66410	.03002
.201	GRADIENT	-.00059	-.00014	-.00017	-.00059	-.00014	.00102	-.00085	-.01832	.00060	.00016

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

NR. 701.0405 ORB B16C507F14B7V563X9

(PDM143) ( 23 JUN 73 )

PARAMETRIC DATA

ALPHA = 5.000  
 RUDDER = -7.500  
 ELEVON = .000

REFERENCE DATA

SREF = 4.4119 50.FT. ZREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 143/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.33350	.02110	-.00350	.33350	-.00919	-.00350	.00220	.21570	.51570	.02273
.201	-8.020	.32180	.02980	.00000	.32750	-.00002	-.00050	.00490	.13700	.49990	.02315
.201	-4.020	.31790	.03540	.00470	.31980	.00639	.00380	-.00100	.03600	.45470	.02353
.201	-2.050	.31310	.03680	.00680	.31710	.00787	.00860	-.00370	.01600	.42220	.02368
.201	.000	.31220	.03720	.00780	.31550	.00858	.01110	-.00610	-.02100	.39100	.02371
.201	1.990	.31250	.03580	.00590	.31470	.00751	.01310	-.00840	-.03600	.35320	.02141
.201	4.000	.31270	.03580	.00590	.31470	.00531	.01640	-.01120	-.06670	.31550	.02245
.201	6.050	.31175	.02890	-.00010	.31700	.00714	.01940	-.01500	-.17400	.16510	.02359
.201	12.080	.31170	.02200	-.00410	.31600	-.00663	.01930	-.01640	-.24700	.06470	.03214
GRADIENT	-.07764	-.07720	-.00013	-.00065	-.00065	-.00013	.00128	-.00125	-.01914	.00013	.00022

NR. 701.0405 ORB B16C507F14B7V563X9

(PDM144) ( 23 JUN 73 )

PARAMETRIC DATA

ALPHA = 10.000  
 RUDDER = -7.500  
 ELEVON = .000

REFERENCE DATA

SREF = 4.4119 50.FT. ZREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 144/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.50050	.06850	-.00650	.50350	-.03766	-.00370	.01370	.22600	.66490	.02870
.201	-8.040	.57350	.07320	-.00160	.57710	-.03146	-.00210	.00350	.14100	.66100	.02345
.201	-4.030	.56840	.07840	.00350	.57120	-.02927	.00510	.00690	.05500	.63770	.02233
.201	-2.030	.56310	.07950	.00560	.57020	-.02384	.00610	-.00100	.01700	.63640	.02234
.201	.000	.56260	.08020	.00630	.56780	-.02278	.01090	-.00350	-.02700	.63600	.02169
.201	2.010	.56220	.07950	.00490	.56750	-.02317	.01300	-.00950	-.03600	.63500	.02226
.201	4.000	.56400	.07850	.00230	.56890	-.02470	.01620	-.01300	-.09500	.63530	.02301
.201	6.050	.56380	.07400	-.00240	.56990	-.02931	.02070	-.01860	-.17500	.56150	.02572
.201	12.070	.56820	.06880	-.00800	.57150	-.03476	.02180	-.02210	-.25600	.66500	.03039
GRADIENT	-.00038	-.00001	-.00007	-.00015	-.00037	.00007	.00135	-.00020	-.01668	.00010	.00076



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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1W67V5R5X9

(RDN145) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = -7.500 FLARES = .000  
 ELEVON = .000 AILRON = .000

RUN NO. 145/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CY	XCP/L	CAB
.201	-12.070	.85680	.17370	-.02290	.87190	-.06319	.00090	.21300	.66940	.02932
.201	-8.030	.85250	.17340	-.01290	.86770	-.06244	.00270	.15000	.66530	.02771
.201	-4.030	.85680	.18260	-.01040	.87430	-.05462	.00850	.05100	.66420	.02612
.201	-2.010	.85740	.18530	-.00920	.87370	-.05203	.01170	.01400	.66370	.02642
.201	.000	.85360	.18630	-.00850	.87440	-.05079	.01540	-.02800	.66350	.02749
.201	2.000	.85460	.18630	-.00880	.87330	-.05041	.01800	-.06600	.66400	.02814
.201	4.000	.85260	.18510	-.01210	.87100	-.05101	.02080	-.10600	.66490	.02780
.201	6.040	.84300	.18070	-.01440	.86060	-.05264	.02110	-.01510	.66600	.02785
.201	12.070	.84980	.17110	-.02030	.86450	-.06376	.01600	-.24400	.66840	.03103
GRADIENT		-.00036	.00029	-.00020	-.00045	.00044	.00154	-.01963	.00008	.00025

NR.701.0405 ORB B16C507F1W67V5R5X9

(RDN146) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 18.000 B.FLAP = -18.000  
 RUDDER = -7.500 FLARES = .000  
 ELEVON = .000 AILRON = .000

RUN NO. 146/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CY	XCP/L	CAB
.201	-12.080	1.02130	.28670	-.04510	1.05930	-.05613	-.00090	.23200	.67520	.03325
.201	-8.030	1.01710	.28660	-.03160	1.05320	-.05493	-.00050	.13800	.67070	.03296
.201	-4.030	1.01600	.28780	-.02290	1.05470	-.05351	.00650	.05300	.66780	.03164
.201	-2.010	1.01710	.29020	-.02300	1.05640	-.05147	.01150	.01100	.66780	.03406
.201	.000	1.01130	.29060	-.02130	1.05100	-.04929	.01470	-.02800	.66720	.03498
.201	2.000	1.00940	.28990	-.02140	1.04900	-.04941	.01640	-.06900	.66730	.03544
.201	4.020	.99690	.28650	-.01910	1.03800	-.04829	.02260	-.10900	.66660	.03346
.201	6.040	.98570	.28350	-.02410	1.02460	-.04744	.02320	-.01360	.66840	.03424
.201	12.070	.96460	.27430	-.02700	1.00160	-.04916	.01810	-.25500	.66970	.03572
GRADIENT		-.00229	-.00014	.00046	-.00223	.00062	.00194	-.02009	-.00014	.00025

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB 816C507F1487V5R5Y3

(R0N147) (23 JUN 73)

## REFERENCE DATA

SRCP = 4.4119 54.47. DRCP = 43.5974 INCHES  
 URCP = 19.2998 INCHES YRCP = .0000 INCHES  
 BRCP = 37.9349 INCHES ZRCP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = -15.000 R.FLARE = .000  
 ELEVON = .000 AIRLON = .000

## PARAMETRIC DATA

RUN NO. 147/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	CL	CPF	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.050	-1.1090	.03410	.01380	-.11300	.02613	.02060	-.01340	-.04900	.70400	.01727
.201	-2.010	-.01690	.03160	.01330	-.01960	.03095	.02110	-.01290	-.04900	.00440	.01709
.201	-.970	.03030	.03130	.01320	.02980	.03161	.02130	-.01200	-.04900	.0170	.01722
.201	.050	.07540	.03160	.01300	.07550	.03170	.02190	-.01160	-.04900	.01780	.01733
.201	1.090	.12430	.03320	.01300	.12490	.03083	.02170	-.01120	-.04800	.62250	.01722
.201	2.130	.16310	.03320	.01270	.17020	.02875	.02180	-.01090	-.04700	.63300	.01726
.201	4.160	.26370	.04160	.01260	.26570	.02232	.02190	-.01030	-.04600	.64260	.01686
.201	6.230	.35900	.05110	.01110	.36250	.01181	.02180	-.00990	-.04400	.64890	.01712
.201	8.310	.45680	.06620	.01080	.46160	-.00051	.02180	-.00900	-.04500	.65150	.01701
.201	10.390	.55630	.08710	.01060	.56290	-.01473	.02180	-.00830	-.04400	.65300	.01775
.201	12.460	.66880	.11950	.00810	.67880	-.02761	.02150	-.00770	-.04200	.65570	.01862
.201	14.570	.78920	.16230	.00150	.80460	-.04150	.02210	-.00690	-.04400	.65940	.01977
.201	16.650	.91050	.22520	-.00870	.93680	-.04525	.02470	-.00220	-.04900	.66330	.02251
.201	18.740	1.00800	.30140	-.01640	1.05140	-.03839	.02670	.00040	-.05200	.66560	.02739
.201	20.870	1.10180	.37710	-.02180	1.16390	-.03893	.02610	-.00510	-.04200	.66670	.03063
.201	22.680	1.17680	.45300	-.02150	1.26040	-.04032	.02660	-.00740	-.04000	.66610	.03551
.201	24.920	1.23680	.52810	-.01440	1.34600	-.04326	.02780	-.00520	-.04500	.66380	.04047
.201	GRADIENT	.04556	.00090	-.00113	.04610	-.00048	.00014	.00038	.00039	-.01549	-.00003

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1487V5R5X5

(RDN148) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 56.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = 4.000 B.FLAP = -16.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

## PARAMETRIC DATA

RUN NO. 148/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.0770	.03070	.00740	-.10960	.02300	.02330	-.01560	-.12600	.66420	.01781
.201	-2.000	-.01460	.02770	.00710	-.01560	.02713	.02560	-.01540	-.12600	.62340	.01619
.201	-.980	.03090	.02770	.00710	.03030	.02622	.02570	-.01540	-.12400	.57640	.01606
.201	.040	.07750	.02870	.00690	.07750	.02859	.02590	-.01530	-.12300	.62800	.01796
.201	1.070	.12440	.02990	.00660	.12490	.02753	.02620	-.01530	-.12400	.64030	.01604
.201	2.100	.17130	.03220	.00700	.17240	.02584	.02660	-.01540	-.12300	.64330	.01766
.201	4.160	.26460	.03610	.00710	.26660	.01877	.02700	-.01570	-.12100	.65360	.01617
.201	6.240	.36030	.04670	.00640	.36340	.00918	.02720	-.01570	-.12100	.65360	.01799
.201	8.320	.45930	.06400	.00610	.46370	-.00318	.02670	-.01610	-.11900	.65520	.01626
.201	10.420	.56260	.08690	.00570	.56930	-.01639	.02670	-.01590	-.11700	.65630	.01805
.201	12.470	.66790	.11360	.00410	.67710	-.03126	.02640	-.01580	-.11600	.65770	.01861
.201	14.560	.76500	.15660	-.00090	.79910	-.04581	.02700	-.01420	-.11800	.66040	.02022
.201	16.660	.90630	.22530	-.01230	.93280	-.04409	.03120	-.01200	-.12800	.66470	.02332
.201	18.710	.99470	.28520	-.01130	1.03360	-.04902	.03020	-.01170	-.12500	.66390	.02376
.201	20.770	1.06950	.36570	-.01590	1.12970	-.03749	.03290	-.01110	-.12600	.66300	.02981
.201	22.860	1.13320	.44960	-.02030	1.20690	-.03478	.03080	-.00500	-.13100	.66360	.03272
.201	24.920	1.22290	.52260	-.01340	1.32930	-.04145	.02810	-.00140	-.13200	.66360	.03445
GRADIENT		.04529	.00094	-.00074	.04577	-.00047	.00022	.00001	.00051	-.00992	.00001

NR.701.0405 ORB B16C507F1487V5R5X5

(RDN149) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 56.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = .000 B.FLAP = -16.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

## PARAMETRIC DATA

RUN NO. 149/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.10370	.01360	-.00420	.10370	.01342	.00970	-.03420	.16000	.67430	.02278
.201	-6.030	.09440	.02190	.00280	.09440	.02172	.01270	-.00550	.10600	.64910	.01934
.201	-4.020	.06230	.02970	.01010	.06280	.02956	.01680	-.00960	.02500	.61580	.01744
.201	-2.020	.07920	.03180	.01240	.07920	.03167	.02030	-.01070	-.01200	.60350	.01724
.201	.000	.07600	.03230	.01300	.07810	.03217	.02120	-.01160	-.04600	.60010	.01740
.201	1.990	.07770	.03120	.01110	.07780	.03109	.02300	-.01300	-.06400	.60860	.01756
.201	4.000	.07600	.02690	.00720	.07600	.02642	.02590	-.01930	-.12200	.62680	.01822
.201	6.040	.06220	.02310	.00280	.06220	.02297	.02440	-.01460	-.16800	.64740	.02056
.201	12.060	.06190	.01540	-.00160	.06190	.01530	.02350	-.01190	-.25300	.66700	.02414
GRADIENT		-.00055	-.00015	-.00035	-.00055	-.00014	.00063	-.00046	-.01825	.00135	.00009

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-MAL 701

PAGE 104

NR.701.0405 ORB 816C507F1487V5R5X9

(R0N150) ( 23 JUN 73 )

## REFERENCE DATA

SECT = 4.4119 96.FT. XREF = 43.1974 INCHES  
 UNCT = 19.2999 INCHES YREF = .0000 INCHES  
 BRCT = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

## PARAMETRIC DATA

RUN NO. 150/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.33350	.03080	-.07280	.33470	.00000	.00380	.00480	.19300	.66300	.02322
.201	-8.030	.32380	.03780	.00340	.32590	.00794	.01030	.00080	.11300	.65610	.01912
.201	-4.090	.31680	.04380	.00920	.31950	.01471	.01780	-.00530	.02900	.64980	.01748
.201	-2.030	.31340	.04520	.01110	.31650	.01672	.02000	-.00810	-.00700	.64730	.01692
.201	.000	.31140	.04640	.01180	.31440	.01760	.02150	-.01020	-.14400	.64640	.01682
.201	1.980	.31190	.04510	.01020	.31420	.01654	.02340	-.01240	-.08100	.64830	.01748
.201	4.000	.31190	.04290	.00720	.31680	.01402	.02680	-.01530	-.12200	.65180	.01799
.201	6.040	.31240	.03680	.00340	.31710	.01001	.02740	-.01800	-.19200	.65610	.02032
.201	12.090	.31240	.03290	-.00740	.31750	.00596	.02350	-.01740	-.25700	.66070	.02454
GRADIENT		-.00035	-.00011	-.00023	-.00036	-.00008	.00110	-.00121	-.01878	.00925	.00004

## REFERENCE DATA

SECT = 4.4119 96.FT. XREF = 43.1974 INCHES  
 UNCT = 19.2999 INCHES YREF = .0000 INCHES  
 BRCT = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = -15.000 RFLARE = .000  
 ELEVON = .000 AILRON = .000

## PARAMETRIC DATA

RUN NO. 151/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.37790	.07680	-.00650	.38230	-.02874	.00390	.01100	.20700	.66400	.02282
.201	-8.030	.36890	.08170	.00180	.37430	-.02230	.00630	.00670	.11800	.65890	.01999
.201	-4.080	.36230	.08890	.00750	.36690	-.01613	.01640	-.00040	.03100	.65530	.01816
.201	-2.020	.36070	.08810	.00930	.36760	-.01452	.01940	-.00440	-.00600	.65400	.01802
.201	.000	.35910	.08900	.01040	.36590	-.01337	.02170	-.00350	-.04300	.65340	.01783
.201	2.000	.36070	.08680	.00690	.36750	-.01409	.02370	-.01210	-.07900	.65430	.01806
.201	4.000	.36240	.08690	.00380	.36880	-.01606	.02640	-.01550	-.11800	.65840	.01846
.201	6.040	.36310	.08320	.00090	.37080	-.02010	.03020	-.02130	-.19500	.65960	.02000
.201	12.070	.36620	.07950	-.00410	.37130	-.02394	.02700	-.02510	-.26900	.66260	.02404
GRADIENT		-.00002	.00003	-.00019	-.00002	.00003	.00121	-.00103	-.01649	.00012	.00003

## POSTTEST DATA

5000	=	43,9974	100ES
500	=	4,4119	90,871
500	=	19,2999	100ES
5000	=	37,9349	100ES
500	=	3,7935	90,871

PU# NO. 152/2 PNL = 1.44 GRADIENT INTERVAL = -5.20/ 5.20

WMOH	BETA	QL	QDF	QLM	ON	CAP	OLM	CUL	CV	SPR/L	CAB
201	-12.000	.05390	.10120	-.02190	.67090	-.05463	.00000	.01720	-.19970	.00800	.02329
201	-0.590	.04000	.10100	-.00120	.66940	-.05330	.01990	.01120	-.11930	.00470	.02190
201	-4.010	.05340	.10190	-.00000	.6730	-.04970	.00010	.01200	-.12800	.00200	.02177
201	-2.030	.05300	.10470	-.07400	.67450	-.04224	.02390	-.01190	-.09900	.00190	.02108
201	-.010	.05290	.10590	-.09410	.67320	-.04053	.02610	-.01990	-.09900	.00170	.02204
201	2.100	.04970	.10540	-.09000	.67170	-.04003	.02000	-.01000	-.12000	.00200	.02243
201	3.990	.04000	.10900	-.09000	.66920	-.04123	.03170	-.01010	-.12000	.00300	.02171
201	0.520	.04350	.10590	-.09000	.66210	-.04708	.02090	-.01000	-.13100	.00410	.02199
201	12.000	.04670	.10120	-.01920	.66430	-.05277	.02240	-.02200	-.12900	.00710	.02399
000000000			.00090	-.09020	-.09000	.00000	.00000	-.01000	-.09337	.00013	.00017

**CONFIDENTIAL DATA**

DOY	=	4,419	56.87	1989	=	43,9374	110.63
DAY	=	19,2799	110.63	1989	=	5,000	140.63
DOY	=	51,5249	140.63	1989	=	16,2799	110.63
DAY	=	5,000	140.63				

Case No.	Date	Age	Sex	Occupation	Marital Status	Education	Religion	Political Party	Income	Assets	Liabilities	Net Worth
1001	1951	35	M	Teacher	Married	High School	Catholic	Democrat	\$12,000	\$5,000	\$7,000	\$5,000
1002	1952	42	F	Homemaker	Married	High School	Catholic	Democrat	\$8,000	\$3,000	\$5,000	\$3,000
1003	1953	28	M	Engineer	Single	College	Protestant	Republican	\$15,000	\$10,000	\$5,000	\$10,000
1004	1954	55	F	Retired	Married	High School	Catholic	Democrat	\$6,000	\$2,000	\$4,000	\$2,000
1005	1955	38	M	Doctor	Married	College	Catholic	Democrat	\$20,000	\$15,000	\$5,000	\$15,000
1006	1956	45	F	Teacher	Married	High School	Catholic	Democrat	\$10,000	\$4,000	\$6,000	\$4,000
1007	1957	32	M	Engineer	Single	College	Protestant	Republican	\$18,000	\$12,000	\$6,000	\$12,000
1008	1958	50	F	Homemaker	Married	High School	Catholic	Democrat	\$9,000	\$3,500	\$5,500	\$3,500
1009	1959	25	M	Engineer	Single	College	Protestant	Republican	\$16,000	\$11,000	\$5,000	\$11,000
1010	1960	40	F	Teacher	Married	High School	Catholic	Democrat	\$11,000	\$4,500	\$6,500	\$4,500

Year	WTA	CL	CD	CLM	Ch	CAF	CLN	CL	CV	APC	CAB
1971	-12.070	1.01800	29770	-0.4480	1.00000	-0.594	0.0070	0.7790	0.1970	0.6510	0.2705
1972	-8.050	1.01270	29590	-0.2690	1.05400	-0.433	0.0120	0.1570	0.1070	0.6990	0.2812
1973	-4.015	1.00790	29490	-0.1940	1.03210	-0.405	0.0090	0.0790	0.0700	0.6690	0.2516
1974	-2.070	1.00130	29130	-0.0190	1.05660	-0.4019	0.0090	0.0470	-0.0110	0.6640	0.2671
1975	0.000	1.00200	29020	-0.0160	1.04390	-0.3970	0.0060	0.0050	-0.0000	0.6570	0.2721
1976	2.000	1.00450	29170	-0.0180	1.04820	-0.3963	0.0090	-0.0240	-0.0010	0.6620	0.2807
1977	4.000	0.99370	29700	-0.0600	1.03450	-0.3678	0.0330	-0.0790	-0.1310	0.6900	0.2712
1978	6.050	0.98420	29420	-0.0210	1.02190	-0.3665	0.0280	-0.1430	-0.2020	0.7000	0.2824
1979	12.000	0.98190	28450	-0.0240	1.00200	-0.3701	0.0240	-0.1690	-0.2700	0.6960	0.2731
1980	60.000	0.97012	27005	-0.0029	1.00190	-0.3945	0.0170	-0.0105	-0.0204	-0.0778	0.2928

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 CRB B16C507F1487X9

(RDN154) ( 23 JUN 73 )

PARAMETRIC DATA

ALPHA = .000 B.FLAP = -16.000  
ELEVON = .000 AILRON = .000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YRRP = .0000 INCHES  
BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 154/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CPF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.09870	.01800	-.00290	.09870	.01868	.03750	-.01280	.08800	.57080	.02244
.201	-8.010	.09320	.02000	.00160	.09320	.01991	.02520	-.00870	.05600	.65340	.01890
.201	-4.010	.08590	.02270	.00520	.08600	.02261	.01260	-.00450	.02800	.63790	.01480
.201	-2.000	.08400	.02350	.00680	.08400	.02340	.00630	-.00240	.01400	.63030	.01339
.201	.010	.08140	.02350	.00750	.08140	.02342	.00010	-.00050	.00000	.62650	.01323
.201	1.999	.08300	.02290	.00710	.08300	.02282	-.00390	.00160	-.01200	.62910	.01423
.201	4.020	.08360	.02240	.00550	.08360	.02234	-.01220	.00360	-.02500	.63620	.01540
.201	8.040	.08660	.01920	.00170	.08660	.01914	-.02470	.00780	-.05400	.65270	.01977
.201	12.090	.08800	.01430	-.00310	.08810	.01423	-.03740	.01250	-.08600	.67290	.02486
GRADIENT	-.00028	-.00006	.00004	.00004	-.00029	-.00006	-.00309	.00101	-.00659	-.00024	.00012

PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -16.000  
ELEVON = .000 AILRON = .000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YRRP = .0000 INCHES  
BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 155/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CPF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.321.3	.03250	-.00110	.32880	.00243	.03590	-.00220	.09800	.66120	.02353
.201	-8.010	.32360	.03590	.00260	.32570	.00634	.02390	-.00180	.06300	.65700	.01862
.201	-4.010	.31920	.03770	.00450	.32140	.00854	.01200	-.00170	.03000	.65480	.01471
.201	-2.000	.31740	.03810	.00580	.31950	.00911	.00610	-.00150	.01400	.65340	.01336
.201	.000	.31570	.03820	.00690	.31790	.00937	.00030	-.00140	.00000	.65260	.01316
.201	2.000	.31560	.03820	.00610	.31790	.00943	-.00540	-.00130	-.01400	.65310	.01401
.201	4.000	.31790	.03770	.00510	.32000	.00867	-.01120	-.00110	-.02800	.65420	.01560
.201	8.020	.31690	.03570	.00260	.32080	.00658	-.02360	-.00070	-.06000	.65700	.02001
.201	12.090	.31600	.03190	-.00190	.31750	.00399	-.03580	.00010	-.09300	.66150	.02515
GRADIENT	-.00027	-.00001	.00001	.00006	-.00022	.00003	-.00289	.00007	-.00179	-.00008	.00014

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL 701

NR.701.0405 ORB B16C507F1W87X9

(RDN156) ( 23 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

ALPHA = 10.000 B.FLAP = -16.000  
ELEVON = .000 AILRON = .000

PARAMETRIC DATA

RUN NO. 156/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	COF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.56980	.07860	-.00210	.57460	-.02344	.03700	.00630	.10800	.66130	.02253
.201	-6.020	.56820	.08070	.00210	.57340	-.02312	.02390	.00520	.06500	.65860	.01852
.201	-4.010	.56900	.08210	.00420	.57450	-.02187	.01190	.00250	.03000	.65730	.01543
.201	-2.010	.56640	.08190	.00510	.57190	-.02157	.00620	.00050	.01400	.65670	.01459
.201	.000	.56690	.08220	.00380	.57240	-.02138	.00030	-.00180	.00100	.65630	.01402
.201	1.990	.56690	.08280	.00550	.57250	-.02082	-.00550	-.00430	-.01200	.65650	.01469
.201	4.010	.56630	.08250	.00400	.57190	-.02093	-.01110	-.00590	-.02800	.65740	.01614
.201	6.040	.56650	.08080	.00120	.57180	-.02262	-.00940	-.00940	-.06100	.65920	.01985
.201	12.060	.56420	.07850	-.00320	.56910	-.02456	-.03540	-.01130	-.10200	.66200	.02433
.201	GRADIENT	-.00024	.00008	-.00000	-.00023	.00013	-.00288	-.00108	-.00709	.00000	.00006

NR.701.0405 ORB B16C507F1W87X9

(RDN157) ( 23 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

ALPHA = 15.000 B.FLAP = -18.000  
ELEVON = .000 AILRON = .000

PARAMETRIC DATA

RUN NO. 157/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	COF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.060	.64670	.18350	-.01650	.66690	-.05151	.04480	.01540	.09000	.66680	.02427
.201	-6.010	.64980	.18120	-.00890	.66720	-.05404	.02980	.01100	.05400	.66360	.02131
.201	-4.010	.65930	.18780	-.00920	.67810	-.05022	.01580	.00310	.02500	.66370	.01761
.201	-2.000	.66020	.18900	-.00960	.67940	-.04927	.01000	.00260	.00900	.66390	.01615
.201	.000	.66100	.18970	-.00870	.68030	-.04688	.00440	.00030	-.00600	.66350	.01917
.201	1.990	.65730	.19190	-.00940	.67750	-.04580	-.00130	-.00160	-.02100	.66380	.01852
.201	4.010	.65220	.19220	-.01070	.67250	-.04409	-.00740	-.00390	-.03500	.66440	.01926
.201	6.040	.63710	.19120	-.01110	.65770	-.04078	-.02260	-.00720	-.06300	.66460	.02219
.201	12.060	.64050	.18020	-.01470	.65800	-.05234	-.04270	-.01890	-.08700	.66610	.02514
.201	GRADIENT	-.00065	.00036	-.00014	-.00066	.00079	-.00288	-.00107	-.00749	.00006	.00017

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-HALL 701

(RDN158) ( 23 JUN 73 )

NR. 701.0405 ORB B16C507F1487X9

PARAMETRIC DATA

ALPHA = 18.000 B. FLAP = 18.000  
ELEVON = .000 AILRON = .000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 158/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	QL	QDF	CLM	ON	CAP	CLN	CSL	CY	XCP/L
.201	-12.060	1.01150	.30310	-.03840	1.05530	-.07358	.04330	.00590	.11000	.57500
.201	-8.030	1.01350	.30300	-.03080	1.05700	-.03833	.02430	.00910	.07300	.47040
.201	-4.020	1.01390	.30210	-.02350	1.05720	-.03947	.01240	.00450	.03400	.26300
.201	-2.020	1.01830	.30180	-.02380	1.05940	-.04072	.00750	.00240	.01700	.16800
.201	.000	1.01830	.30080	-.02300	1.05680	-.04075	.00220	.00090	-.00200	.66780
.201	2.000	1.01210	.29790	-.02120	1.05410	-.04289	-.00160	.00100	-.02500	.56720
.201	4.000	.99970	.29540	-.01750	1.04100	-.04099	-.00750	-.00340	-.03700	.66800
.201	6.000	.98140	.29310	-.01840	1.02350	-.03722	-.02340	-.00920	-.06800	.66640
.201	12.060	.95230	.28450	-.02030	.99320	-.03566	-.04230	-.01280	-.10200	.66730
GRADIENT	-.06169	-.00086	-.00086	.00075	-.00188	-.00026	-.00244	-.00086	-.00917	-.00024

(RDN159) ( 23 JUN 73 )

NR. 701.0405 ORB B16C507F1487X9

PARAMETRIC DATA

BETA = .000 B. FLAP = -18.000  
RUDDER = .000 RFLARE = .000  
ELEVON = .000 AILRON = .000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 159/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	QL	QDF	CLM	ON	CAP	CLN	CSL	CY	XCP/L	CAB
.201	-4.060	1.13450	.03230	.00620	-.13650	.02267	.00030	-.00100	.00000	.67630	.03173
.201	-2.020	1.04050	.02790	.00630	-.04150	.02644	.00030	-.00070	.00000	.71450	.03243
.201	-1.010	.00490	.02790	.00610	.00440	.02800	.00030	-.00090	.00000	.16180	.03141
.201	.030	.05140	.02730	.00640	.05140	.02730	.00040	-.00090	.00000	.61310	.03226
.201	1.060	.09900	.02900	.00600	.09990	.02712	.00040	-.00100	.00000	.63830	.03117
.201	2.090	.14600	.03000	.00630	.14700	.02467	.00020	-.00110	.00100	.64450	.03109
.201	4.140	.24000	.03560	.00510	.24190	.01814	.00010	-.00160	.00200	.65200	.03054
.201	6.210	.33430	.04480	.00450	.33670	-.00418	.00020	-.00240	.00200	.65450	.02978
.201	8.270	.43280	.05870	.00410	.43810	-.01729	.00020	-.00230	.00200	.65620	.03019
.201	10.370	.53240	.07990	.00220	.53810	-.03272	.00020	-.00240	.00200	.65720	.02986
.201	12.470	.64480	.10910	.00220	.65310	-.03272	.00020	-.00240	.00200	.65870	.03237
.201	14.510	.75510	.14840	-.00340	.76820	-.04559	.00030	-.00270	.00300	.66160	.03298
.201	16.610	.87860	.20660	-.01320	.90100	-.05314	.00330	-.00430	-.00300	.66520	.03640
.201	18.690	.98060	.28110	-.02060	1.01910	-.04815	.00350	-.00350	-.00600	.66720	.04047
.201	20.780	1.07830	.35560	-.02700	1.13430	-.05012	.00270	-.00310	.00300	.66850	.04452
.201	22.840	1.15820	.43240	-.02850	1.23530	-.05120	.00340	-.00840	.00800	.66770	.04889
.201	24.920	1.23200	.51240	-.02220	1.33320	-.05451	.00450	-.00750	.00800	.66590	.03410
GRADIENT	.04592	.00009	.00043	-.00009	.04600	-.00032	-.00002	-.00008	.00023	.00568	-.00018



DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-HAAL 701

(RON180) ( 23 JUN 73 )

NR.701.0405 CRB 816C507FWB7E10V5X9

REFERENCE DATA

SREF = 4.4119 34.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 RELARE = .000  
 ELEVON = 15.000 AIRLON = .000

PARAMETRIC DATA

RUN NO. 160/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-3.910	.19680	.03970	-.13770	.19560	.05323	.00070	-.00130	.00000	.91260	.02302
.201	-1.640	.29070	.04730	-.13790	.23910	.05638	.00060	-.00140	.00100	.83110	.02174
.201	-.610	.33510	.05140	-.13780	.33440	.05619	.00090	-.00170	.00100	.80790	.02164
.201	.220	.38090	.05590	-.13670	.38070	.05444	.00090	-.00210	.00200	.79070	.02239
.201	1.230	.42310	.06240	-.13790	.42440	.05329	.00100	-.00210	.00100	.77660	.02142
.201	2.270	.47080	.06820	-.13740	.47320	.04947	.00110	-.00250	.00100	.76410	.02235
.201	4.310	.55210	.08450	-.13480	.55690	.04266	.00150	-.00230	.00000	.74680	.02107
.201	6.400	.64720	.10430	-.13620	.65480	.03149	.00140	-.00260	.00100	.73460	.02104
.201	8.480	.75830	.13110	-.14590	.76940	.01773	.00120	-.00220	.00100	.72570	.02221
.201	10.550	.86920	.16620	-.14690	.88500	.00412	.00130	-.00260	.00200	.71950	.02296
.201	12.640	.97580	.20950	-.14860	.99800	-.00921	.00120	-.00180	.00000	.71340	.02415
.201	14.710	1.08300	.26290	-.15250	1.11430	-.02072	.00170	-.00180	.00000	.70910	.02488
.201	16.770	1.18360	.33760	-.15570	1.23070	-.01838	.00060	.00210	-.00100	.70320	.02930
.201	18.860	1.26200	.42730	-.16060	1.33240	-.00370	.00340	.00130	-.00400	.70340	.03508
.201	20.920	1.33300	.51330	-.15650	1.42480	-.00596	.00390	-.00350	.00100	.69940	.03909
.201	22.970	1.37050	.57530	-.13880	1.48640	-.00522	.00380	-.00700	.00300	.69350	.04394
.201	25.010	1.36180	.62760	-.10660	1.51760	-.01545	.00710	-.01180	.01300	.68520	.05046
GRADIENT		.04315	.00538	.00029	.04412	-.00137	.00010	-.00015	.00000	-.01922	-.00016

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAL 701

PAGE 110

NR. 701.0405 ORB 816C50771487E18V89

(RDN161) ( 25 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XWRP = 43.5974 INCHES  
 LREF = 19.9999 INCHES YWRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZWRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B-FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -15.000 AILRON = .000

RUN NO. 161/ D RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLN	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.220	-.41850	.05490	.14660	-.42140	.02393	.00000	-.00190	-.00200	.8460	.01003
.201	-3.160	-.32440	.04340	.14660	-.32580	.03113	.00000	-.00190	-.00200	.82140	.00867
.201	-1.140	-.27910	.03840	.14710	-.27980	.03279	-.00010	-.00180	-.00100	.81880	.01014
.201	-.100	-.23190	.03430	.14720	-.23200	.03369	.00000	-.00190	-.00100	.88770	.01009
.201	.920	-.18480	.03140	.14720	-.18420	.03435	.00000	-.00160	-.00100	.94660	.01008
.201	1.950	-.13740	.02840	.14800	-.13640	.03305	.00010	-.00150	-.00200	1.04940	.01032
.201	4.020	-.04620	.02570	.14800	-.04430	.02883	.00000	-.00160	-.00200	1.25820	.01035
.201	6.100	.04810	.02590	.15030	.05060	.02061	.00030	-.00200	-.00100	-.40330	.01084
.201	8.190	.13920	.03110	.15260	.14220	.01103	.00050	-.00160	-.00300	.27490	.01083
.201	10.210	.23610	.04110	.15610	.23970	-.00148	.00060	-.00160	-.00100	.42610	.01193
.201	12.310	.34490	.06140	.15540	.35010	-.01363	.00050	-.00130	-.00100	.50060	.01297
.201	14.390	.46210	.09110	.15070	.47020	-.02665	.00100	-.00120	-.00100	.54490	.01444
.201	16.460	.57840	.13590	.14500	.59310	-.03367	.00330	.00030	-.00600	.57220	.01573
.201	18.550	.68190	.18660	.14150	.70540	-.04003	.00050	.00050	.00000	.58790	.01811
.201	20.630	.79270	.26090	.12820	.83370	-.03527	.00260	-.00020	-.00400	.60480	.02086
.201	22.700	.87040	.31910	.13040	.92610	-.04162	.00430	-.00440	.00000	.60940	.02334
.201	24.800	.95590	.39290	.12470	1.03260	-.04438	.00330	-.00370	.00000	.61660	.02700
GRADIENT		.04527	-.00356	.00020	.04586	.00058	.00001	.00005	-.00000	.11221	.00007

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL 701

NR.701.0405 ORB 816C507F1407E18V5X9

(RDN162) ( 23 JUN 73 )

REFERENCE DATA

REF = 4.4119 SQ.FT. XRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = -20.000 AIRCRN = .000

RUN NO. 162/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.280	-4.6080	.07240	.16610	-.46490	.03780	-.00010	-.00110	-.00200	.78820	.01052
.201	-2.200	-.37180	.03690	.16800	-.37580	.04459	-.00010	-.00080	-.00200	.82120	.01043
.201	-1.160	-.52470	.05400	.16830	-.32570	.04738	-.00020	-.00080	-.00100	.84540	.01010
.201	-.140	-.28210	.04940	.16990	-.28220	.04870	-.00020	-.00140	-.00100	.87590	.01020
.201	.880	-.23750	.04490	.17030	-.23680	.04856	-.00020	-.00160	.00000	.91800	.01025
.201	1.910	-.19220	.04140	.17070	-.19070	.04780	-.00030	-.00170	-.00100	.98110	.01024
.201	3.970	-.09790	.03610	.17110	-.09520	.04280	-.00010	-.00250	-.00170	1.30500	.01039
.201	6.030	-.00210	.03420	.17150	.00140	.03419	-.00010	-.00250	-.00100	-3.27670	.01119
.201	8.100	.09150	.03560	.17310	.09560	.02236	.00000	-.00200	.00000	.01050	.01315
.201	10.180	.18000	.04390	.18000	.18490	.01137	.00020	-.00310	.00000	.31070	.01281
.201	12.220	.26560	.05680	.18670	.27200	.00117	.00060	-.00370	.00000	.41360	.01240
.201	14.330	.36060	.08100	.19370	.36950	-.01086	.00190	.00340	-.00300	.47180	.01453
.201	16.400	.47340	.12150	.18980	.48840	-.01710	.00340	.00180	-.00600	.52050	.01478
.201	18.470	.57630	.16770	.19010	.59980	-.02359	.00060	.00150	.00000	.54620	.01658
.201	20.560	.69010	.23390	.17890	.71890	-.01994	.00250	.00080	-.00300	.57060	.01759
.201	22.630	.76310	.28860	.18170	.81540	-.02729	.00420	-.00280	.00000	.58000	.02053
.201	24.720	.84480	.35500	.17750	.91580	-.03084	.00410	-.00420	.00100	.59040	.02476
GRADIENT		.04387	-.00436	.00063	.04470	.00064	-.00001	-.00019	.00016	.05681	-.00002

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-HUAL 701

(RCH163) ( 23 JUN 73 )

NR.701.0405 ORB 816C507F1487E18V3X3

PARAMETRIC DATA

BETA = .000 B. FLAP = -10.000  
RUDDER = .000 RFLARE = .000  
ELEVON = -30.000 AILRON = .000

REFERENCE DATA

SREF = 4.4119 SQ. FT. XGRP = 45.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 10.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 163/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.280	-50260	.09630	.17980	-.90840	.05844	-.00090	-.00120	.00000	.77690	.01415
.201	-2.200	-.40120	.08030	.17550	-.40400	.06477	-.00080	-.00160	.00000	.81590	.01416
.201	-1.170	-.33560	.07420	.17440	-.33700	.06692	-.00040	-.00100	.00000	.83320	.01441
.201	-.140	-.31150	.07030	.17690	-.31170	.06952	-.00010	.00100	-.00100	.76370	.01392
.201	.880	-.23660	.06490	.17710	-.26550	.06900	.00000	.00130	.00000	.89930	.01524
.201	1.940	-.22360	.06180	.17820	-.22140	.06924	-.00010	.00170	.00000	.94870	.01436
.201	7.970	-.12690	.05430	.17690	-.12460	.06504	-.00010	.00240	-.00100	1.11690	.01601
.201	6.040	-.03330	.05190	.17840	-.02940	.05487	.00000	.00270	-.00200	2.63630	.01687
.201	8.090	.03330	.05300	.18220	.06020	.04498	.00000	.00330	-.00300	-.42560	.01630
.201	10.220	.14710	.05900	.18670	.15520	.03133	-.00020	.00350	-.00200	.22820	.01605
.201	12.290	.23890	.07350	.19310	.24870	.02121	-.00030	.00350	-.00200	.38130	.01582
.201	14.290	.31400	.09480	.20440	.32770	.01436	.00060	.00380	-.00700	.43610	.01490
.201	16.360	.39970	.12890	.21320	.41980	.01103	.00120	.00360	-.00700	.47770	.01552
.201	18.440	.47470	.16310	.22480	.50190	.00453	-.00010	.00370	-.03600	.49920	.01786
.201	20.490	.54950	.21690	.23110	.59060	.01075	.00040	.00350	-.00500	.51950	.01729
.201	22.590	.61080	.26030	.24140	.66380	.00618	.00210	.00100	-.00200	.52940	.01934
.201	24.620	.68210	.31550	.24440	.75160	.00255	.00130	-.00070	.00000	.54330	.02382
.201	GRADIENT	.04486	-.02496	-.00008	.04606	.00068	.00012	.00054	-.00009	.04301	.00020

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR. 701.0405 ORS 816C307F1W87E18V3X9

(ORDH64) (23 JUN 73)

PARAMETRIC DATA

BETA = .000 B-FLAP = -18.000  
RUDDER = .000 RFLARE = .000  
ELEVON = -40.000 AILRON = .000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 164/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.310	-.55290	.12570	.19350	-.56080	.08370	.00000	.00070	.00000	.78380	.01939
.201	-2.240	-.45000	.10610	.18770	-.45380	.08840	-.00040	.00060	.00000	.80840	.02027
.201	-1.200	-.40030	.09910	.18530	-.40230	.09061	-.00040	.00050	.00000	.82530	.02000
.201	-.170	-.34850	.09180	.18360	-.34880	.09076	-.00050	.00020	.00000	.84880	.02082
.201	.890	-.30050	.08740	.18190	-.29920	.09187	-.00050	.00000	.00000	.87810	.01999
.201	1.870	-.26120	.08130	.18420	-.25840	.08987	-.00040	-.00190	.00000	.91570	.01971
.201	3.930	-.11650	.07290	.18290	-.15980	.08409	-.00040	-.00240	.00000	1.07080	.02085
.201	5.990	-.07240	.07020	.18180	-.06470	.07740	.00000	-.00240	.00000	1.66840	.02108
.201	8.070	-.02500	.06910	.18530	.03440	.06492	.00020	-.00170	-.00100	-1.26950	.02230
.201	10.140	.12070	.07530	.18790	.13210	.05287	.00050	-.00210	-.00100	.15090	.02125
.201	12.210	.21740	.08910	.19120	.23130	.04106	.00060	-.00240	-.00100	.36330	.02177
.201	14.300	.30660	.11360	.19860	.32310	.03427	.00080	-.00260	.00100	.44080	.01932
.201	16.360	.39610	.15030	.20440	.42240	.03264	.00150	-.00150	.00000	.48630	.01821
.201	18.420	.47920	.18550	.21410	.51330	.02450	.00110	-.00070	.00000	.51020	.01933
.201	20.500	.56310	.23710	.21840	.61080	.02472	.00270	.00000	-.00300	.53160	.02298
.201	22.570	.6460	.29340	.22390	.70200	.01722	.00450	.00060	-.00500	.54550	.02324
.201	24.620	.70320	.34450	.22490	.78280	.02007	.00380	-.00300	.00000	.55680	.02425
.201	GRADIENT	.04692	-.00631	-.00122	.04853	.00014	-.00004	-.00041	.00000	.03271	.00011



DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 QCB B16C507F J4VB V3X10

(RDN166) ( 23 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2979 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = 4.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ATLRON = .000  
 NACX/L = .490 LTP = 4.000

PARAMETRIC DATA

RUN NO. 166/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.1160	.02960	.00310	-1.1360	.02158	.00400	-.00230	-.08300	.56960	.01586
.201	-2.010	-.01820	.02680	.00270	-.01910	.02597	.00420	-.00310	-.09300	.71110	.01594
.201	-.970	.02930	.02680	.00250	.02880	.02739	.00410	-.00360	-.08200	.62870	.01606
.201	.050	.07690	.02750	.00210	.07690	.02729	.00420	-.00390	-.08200	.65010	.01617
.201	1.070	.12290	.02890	.00200	.12340	.02620	.00410	-.00420	-.08200	.65410	.01643
.201	2.090	.16090	.03140	.00170	.17990	.02517	.00430	-.00480	-.08100	.65640	.01579
.201	4.160	.26540	.03790	.00090	.26740	.02173	.00460	-.00540	-.08100	.65870	.01672
.201	6.240	.36190	.04810	.00000	.36500	.00853	.00440	-.00640	-.08100	.65990	.01687
.201	8.300	.46120	.05310	-.00010	.46550	-.01762	.00420	-.00730	-.08100	.66010	.01780
.201	10.390	.56040	.08470	.00020	.56690	-.01762	.00480	-.00810	-.08100	.65980	.01762
.201	12.460	.66090	.11210	.00000	.66950	-.03317	.00490	-.00870	-.08100	.66000	.01795
.201	14.530	.76560	.14790	-.00070	.77820	-.04901	.00650	-.00760	-.08200	.66030	.01914
.201	16.620	.86120	.19870	-.00700	.90130	-.06173	.00650	-.00820	-.08900	.66270	.02081
.201	18.670	.93900	.25170	-.00100	.97340	-.08271	.00910	-.00290	-.09670	.66030	.02293
.201	20.680	.96750	.32530	.00760	1.02000	-.03738	.00710	-.00710	-.09200	.65730	.02565
.201	22.740	.95370	.40330	.01860	1.06340	-.03346	.01090	-.01050	-.08200	.65360	.02937
.201	24.780	1.00960	.42650	.04200	1.09540	-.03607	.01230	-.01660	-.06600	.64820	.03779
GRADIENT		.04584	.00997	-.00026	.04631	-.00040	.00006	-.00038	.00019	-.00298	.00008

NR.701.0405 QCB B16C507F J4VB V3X10

(RDN167) ( 23 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2979 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ATLRON = .000  
 NACX/L = .490 LTP = 4.000

PARAMETRIC DATA

RUN NO. 167/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.10110	.01300	-.00440	.10110	.01297	-.00670	.00430	.24400	.68990	.02124
.201	-6.020	.09290	.02130	-.00330	.09290	.02120	-.00580	.00400	.16600	.67280	.01758
.201	-4.040	.08330	.02750	.00160	.08330	.02789	-.00180	.00300	.08300	.65300	.01528
.201	-2.030	.07990	.02990	.00380	.07990	.02988	-.00140	.00030	.04800	.64260	.01530
.201	.000	.07810	.03070	.00460	.07810	.03068	-.00130	.00020	.00200	.63740	.01526
.201	1.990	.07730	.02560	.00410	.07740	.02960	.00240	-.00250	-.03900	.64070	.01539
.201	4.000	.07640	.02760	.00190	.07640	.02780	.00410	-.00400	-.08000	.65090	.01616
.201	6.010	.07600	.02130	-.00270	.07600	.02129	.00680	-.00600	-.16300	.67270	.01795
.201	12.050	.08060	.01570	-.00790	.08060	.01371	.00770	-.00330	-.12470	.69500	.02182
GRADIENT		-.00082	-.00004	.00705	-.00061	-.00004	.00051	-.00075	-.02025	-.00031	.00010

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL 701

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NR.701.0405 ORB 816C507F1J44B7V5X10

(RDN169) ( 23 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 50.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 5.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLRON = .000  
 NACX/L = .490 LIP = 4.000

RUN NO. 166/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.33220	.03010	-.00920	.33360	-.00014	-.00910	.01020	.23400	.66990	.02306
.201	-8.040	.32610	.03790	-.00410	.32820	.00815	-.00760	.00710	.17100	.66450	.01822
.201	-4.020	.32090	.04320	.00010	.32310	.01397	-.00390	.00270	.08500	.65980	.01584
.201	-2.010	.31710	.04440	.00240	.31980	.01543	-.00160	.00090	.04400	.65720	.01579
.201	.000	.31590	.04510	.00320	.31870	.01630	.00030	.00160	.00200	.65630	.01556
.201	1.990	.31390	.04390	.00220	.31660	.01523	.00230	-.00380	-.03800	.65740	.01646
.201	4.000	.31320	.04230	.00040	.31600	.01378	.00460	-.00610	-.07900	.65950	.01690
.201	6.040	.31460	.03700	-.00370	.31670	.00932	.00680	-.00990	-.16800	.66420	.01885
.201	12.060	.31620	.02990	-.00780	.31760	.00110	.01110	-.01230	-.23500	.66680	.02263
GRADIENT	-.00087	-.00011	.00002	.00002	-.00087	-.00003	.00100	-.00109	-.02045	-.00002	.02013

NR.701.0405 ORB 816C507F1J44B7V5X10

(RDN169) ( 23 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 50.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLRON = .000  
 NACX/L = .490 LIP = 4.000

RUN NO. 169/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.37380	.07500	-.01100	.37790	-.02958	-.01000	.01400	.26400	.66680	.02326
.201	-8.040	.36820	.08030	-.00900	.37340	-.02319	-.00820	.01050	.17200	.66310	.02020
.201	-4.020	.36370	.08560	-.00190	.36990	-.01756	-.00300	.00480	.08200	.66090	.01806
.201	-2.010	.36230	.08740	.00110	.36890	-.01526	-.00110	.00190	.01000	.65920	.01676
.201	.000	.36090	.08790	.00220	.36720	-.01447	.00040	-.00130	.00100	.65850	.01695
.201	2.000	.35980	.08720	.00180	.36640	-.01507	.00210	-.00500	-.03200	.65960	.01702
.201	4.000	.35950	.08510	-.00040	.36560	-.01703	.02460	-.00840	-.07900	.66020	.01794
.201	6.040	.35950	.08060	-.00440	.36490	-.02150	.00960	-.01390	-.17000	.66280	.01910
.201	12.060	.35780	.07510	-.00910	.36200	-.02656	.01270	-.01760	-.26500	.66580	.02162
GRADIENT	-.00054	-.00006	.00004	.00014	-.00055	.00004	.00092	-.00156	-.02005	-.00009	-.00000



NR.701.0405 ORB B16C507F1J4W7V5X10

(RDN170) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 170/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAS
.201	-12.100	.83740	.17220	-.02130	.83290	-.035904	-.00360	.01660	.23400	.66990	.02378
.201	-8.040	.83330	.17400	-.01260	.83140	-.03675	-.00430	.01100	.16600	.66330	.02116
.201	-4.020	.83300	.18140	-.02810	.83110	-.04904	.00210	.00330	.07600	.66340	.01964
.201	-2.030	.83290	.18410	-.00150	.83170	-.04654	.00310	.00290	.03200	.66290	.02063
.201	.000	.82920	.18460	-.00430	.84640	-.04483	.00750	.00040	-.01000	.66160	.02113
.201	1.980	.82630	.18330	-.00470	.84520	-.04539	.01050	-.00220	-.03500	.66200	.02131
.201	4.010	.82400	.18190	-.00610	.84260	-.04626	.01260	-.00410	-.10000	.66230	.02069
.201	6.040	.82270	.17100	-.00910	.83840	-.03627	.01040	-.01340	-.17200	.66390	.01993
.201	12.090	.82500	.16920	-.01830	.84010	-.03637	.00700	-.01920	-.25300	.66780	.02192
GRADIENT	-.00125	.00001	.00026	-.00117	.00033	.00033	.00132	-.00119	-.02187	-.00011	.00016

NR.701.0405 ORB B16C507F1J4W7V5X10

(RDN171) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 16.000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

RUN NO. 171/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAS
.201	-12.090	.97290	.26480	-.03430	1.01280	-.04226	-.00580	.00350	.27800	.67220	.02620
.201	-8.040	.95190	.26400	-.02130	.99270	-.03594	-.00750	.00360	.18200	.66770	.02306
.201	-4.020	.93120	.28110	-.00630	.97230	-.03177	-.00250	.00360	.06300	.66240	.02321
.201	-2.020	.92400	.27900	-.00070	.96470	-.03137	.00090	.00260	.03900	.66020	.02420
.201	.000	.92130	.27940	.00110	.96250	-.03021	.00350	.00040	-.00400	.65950	.02471
.201	2.000	.91980	.27790	.00100	.96010	-.03192	.00690	-.00150	-.04800	.65950	.02415
.201	4.010	.93170	.27220	-.00320	.96990	-.04047	.01140	.00070	-.10200	.66120	.02263
.201	6.040	.93000	.27190	-.01100	.96610	-.04000	.01530	-.00990	-.16900	.66410	.02377
.201	12.070	.93020	.26440	-.01780	.96590	-.04709	.01120	-.01300	-.27300	.66660	.02506
GRADIENT	-.00017	-.00096	.00041	-.00047	-.00046	.00046	.00167	-.00070	-.02261	-.00015	-.00004

MR. T01.0405 ORB 816C507F1J4J8TE18V3X10

(BDH172) ( 25 JUN 75 )

## REFERENCE DATA

SRF = 4.4119 56.77. XREF = 43.9974 INCHES  
 URF = 19.2999 INCHES YREF = .0000 INCHES  
 BRDF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -5.000 AIRLON = .000  
 MACY/L = .490 LIP = 4.000

RUN NO. 172/ 0 BNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	AUT-1	CL	CDP	CLM	ON	CAP	CLM	CSL	CY	KCP/L	CAB
.201	-4.112	-.22840	.03760	.05870	-.23030	.02102	.00000	-.00060	.00000	.75140	.01266
.201	-3.090	-.13390	.03060	.05900	-.13490	.02571	.00010	-.00090	-.00100	.81710	.01325
.201	-1.030	-.06430	.02870	.05990	-.06480	.02716	.00000	-.00110	.00000	.87740	.01356
.201	.000	-.03430	.02830	.05910	-.03630	.02851	.00000	-.00100	.00000	1.24130	.01290
.201	1.030	.01000	.02820	.05870	.01030	.02865	.00000	-.00120	.00000	-1.33110	.01263
.201	2.030	.05720	.02800	.05890	.05810	.02800	.00000	-.00110	.00000	.29670	.01331
.201	4.110	.15230	.03070	.05930	.15410	.01974	.00010	-.00110	.00000	.52180	.01371
.201	6.190	.24630	.03770	.05780	.24910	.01094	.00040	-.00120	.00000	.57670	.01328
.201	8.260	.34030	.04910	.05760	.34930	-.00111	.00020	-.00140	.00000	.60070	.01406
.201	10.340	.44330	.06730	.05810	.45030	-.01381	.00040	-.00150	.00000	.61360	.01439
.201	12.420	.55280	.09230	.05830	.55930	-.02857	.00040	-.00130	-.00100	.62230	.01622
.201	14.470	.65630	.11180	.05780	.66630	-.04542	.00190	-.00180	-.00300	.62880	.01790
.201	16.530	.75520	.1210	.05360	.77300	-.05014	.00810	.00240	-.01600	.63510	.01963
.201	18.610	.82800	.23040	.03770	.85630	-.04526	.00090	-.00350	.00100	.63570	.02068
.201	20.680	.88010	.28960	.06190	.92560	-.03989	.00400	-.00010	-.00000	.63600	.02144
.201	22.710	.92730	.34440	.14670	.98850	-.04045	.00380	-.00090	-.00200	.63570	.02588
.201	24.780	.93000	.36610	.09130	1.00620	-.03898	.00400	-.00520	.00100	.62740	.03175
GRADIENT	.04617	-.00077	-.00077	.00005	.04664	-.00008	.00000	-.00004	.00005	-.09711	.00005

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TABULATED SOURCE FORCE DATA-NAL T01

PAGE 1.9

NR. T01.0403 ORB B16C507F1J4687E18V5X10

(R0N173) ( 23 JUN 73 )

## REFERENCE DATA

SRF = 4.1119 SQ.FT. TMRP = 43.5974 INCHES  
 URF = 19.2999 INCHES TMRP = .0000 INCHES  
 BRF = 37.9349 INCHES TMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AIRLON = 5.000  
 NACA/L = .490 LIP = 4.000

RUN NO. 173/ 0 RNAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CDP	CLN	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-4.090	-1.1100	.03540	.00620	-1.11320	.02743	.00330	.01900	-.01700	.67960	.01473
.201	-2.080	-0.1480	.03220	.00570	-0.15170	.01110	.00310	.01940	-.02000	.79160	.01516
.201	-9.980	.03480	.03170	.00350	.03410	.03232	.00490	.01990	-.02100	.60200	.01567
.201	.040	.07990	.03240	.00150	.07990	.03236	.00470	.02020	-.02200	.63500	.01540
.201	1.080	.12970	.03400	.00490	.12960	.03161	.00430	.02030	-.02200	.64640	.01378
.201	2.110	.17600	.03650	.00460	.17730	.03004	.00400	.02070	-.02300	.65060	.01345
.201	4.170	.26750	.04270	.00460	.26920	.02311	.00360	.02100	-.02400	.63360	.01364
.201	6.250	.36240	.03290	.00360	.36400	.01316	.00290	.02100	-.02600	.63620	.01374
.201	8.300	.45870	.06620	.00340	.46370	.00126	.00230	.02110	-.02600	.63730	.01582
.201	10.390	.56080	.00990	.00310	.56760	-.01276	.00170	.02180	-.02900	.63790	.01711
.201	12.480	.66610	.11960	.00320	.67610	-.02709	.00110	.02200	-.03100	.63620	.01800
.201	14.550	.77010	.13370	.00250	.78400	-.04466	.00180	.02190	-.03500	.63680	.01971
.201	16.610	.86870	.20830	-.00110	.89130	-.04859	.00650	.02740	-.05100	.66040	.02150
.201	18.650	.91800	.27630	.00330	.95880	-.02989	.00010	.02060	-.03400	.65670	.02368
.201	20.700	.96190	.32990	.01330	1.01640	-.03149	-.00040	.01460	-.02600	.65450	.02458
.201	22.750	.99390	.38320	.02620	1.06490	-.03118	-.00160	.00490	-.01670	.63110	.02692
.201	24.770	.98320	.41860	.05750	1.06810	-.03200	-.00100	.00620	-.00900	.64060	.03516
GRADIENT		.04591	.00392	-.00021	.04647	-.00049	-.00022	.00023	-.00061	-.00790	.00012

(RON174) ( 23 JUN 75 )

NR.701.0405 ORB 816C507F1J4W8TE18V5X10

PARAMETRIC DATA

BETA = .000  
RUDDER = .000  
ELEVON = .000  
MACY/L = .490

SREF = 4.4119 SQ.FT.  
UREF = 19.2999 INCHES  
BREF = 17.9349 INCHES  
SCALE = .0405 SCALE

REFERENCE DATA

RUN NO. 174/ 0 RVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.040	-.00350	.03280	-.04420	-.00380	.03228	.00050	-.00130	.00000	-2.07310	.01732
.201	-1.970	.09190	.03270	-.04570	.09070	.03590	.00060	-.00140	.00000	.94090	.01768
.201	-.950	.13970	.03440	-.04610	.13910	.03669	.00050	-.00150	.00100	.77900	.01763
.201	.150	.18800	.03650	-.04710	.18810	.03609	.00050	-.00140	.00000	.74990	.01793
.201	1.140	.23670	.03940	-.04770	.23670	.03470	.00050	-.00150	.00100	.73230	.01809
.201	2.180	.28150	.04340	-.04790	.28300	.03267	.00070	-.00140	.00000	.72070	.01794
.201	4.200	.37420	.05250	-.04760	.37700	.02498	.00070	-.00180	.00100	.70530	.01797
.201	6.290	.47050	.06690	-.04980	.47500	.01590	.00080	-.00220	.00200	.69760	.01771
.201	8.400	.56810	.08610	-.05010	.57460	.00217	.00100	-.00240	.00200	.69130	.01805
.201	10.420	.64810	.11130	-.05090	.67720	-.01143	.00130	-.00220	.00000	.68690	.01894
.201	12.500	.77370	.14470	-.05330	.78670	-.02630	.00180	-.00290	.00000	.68430	.02043
.201	14.590	.83150	.18170	-.05550	.90240	-.04361	.00330	-.00300	-.00300	.68200	.02307
.201	16.650	.97400	.24170	-.05540	.90240	-.04764	.00910	.00440	-.01800	.67980	.02496
.201	18.700	1.00620	.31550	-.04520	1.05430	-.02341	.00430	.00080	-.00600	.67540	.02749
.201	20.750	1.03870	.36650	-.02970	1.10130	-.02500	.00410	-.00050	-.00600	.66960	.02832
.201	22.750	1.05710	.41660	-.01180	1.13590	-.02475	.00340	-.00430	-.00100	.66370	.03345
.201	24.780	1.03380	.44640	.02700	1.12370	-.02806	.00460	-.00340	.00200	.65130	.04117
GRADIENT		.04584	.00244	-.00045	.04647	-.00086	.00002	-.00005	.00009	.25078	.00008

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1J4W67E18V5X10

(R0N175) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -12.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -10.000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

RUN NO. 175/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.190	-.32280	.02560	.10020	-.32530	.02191	.00020	-.00090	-.00100	.77060	.01097
.201	-2.110	-.22820	.03610	.10050	-.22930	.02770	.00010	-.00090	-.00100	.81730	.01125
.201	-1.070	-.18360	.03280	.10020	-.18410	.02937	.00020	-.00080	-.00100	.85530	.01119
.201	-.030	-.13200	.02990	.10090	-.13200	.02987	.00010	-.00090	-.00100	.93420	.01158
.201	.970	-.08630	.02850	.10110	-.08580	.03003	.00020	-.00090	.00000	1.08280	.01174
.201	2.030	-.03800	.02770	.10010	-.03700	.02903	.00020	-.00060	-.00100	1.63030	.01167
.201	4.050	.05530	.02800	.10100	.03710	.02403	.00020	-.00080	-.00100	.02580	.01206
.201	6.150	.15180	.03160	.10110	.15430	.01514	.00050	-.00080	-.00100	.42490	.01199
.201	8.220	.24800	.04000	.10170	.25120	.00417	.00050	-.00070	-.00100	.51470	.01233
.201	10.280	.34640	.05400	.10340	.35050	-.70872	.00060	-.00100	-.00100	.55400	.01320
.201	12.370	.45110	.07670	.10310	.45710	-.02169	.00050	-.00080	-.00100	.57890	.01398
.201	14.420	.55440	.10350	.10760	.56270	-.03783	.00160	-.00100	-.00300	.59380	.01572
.201	16.520	.65860	.14820	.10020	.67360	-.04519	.00710	.00160	-.01300	.60650	.01754
.201	18.580	.75610	.19650	.10480	.76040	-.04837	.00260	-.00030	-.00200	.61050	.01792
.201	20.620	.79370	.25890	.10320	.83410	-.03733	.00430	-.00040	-.00400	.61550	.01933
.201	22.700	.85040	.31270	.10770	.90520	-.03980	.00430	-.00030	-.00200	.61720	.02225
.201	24.720	.86800	.35880	.12190	.93850	-.03708	.00520	-.00070	.00500	.61330	.02647
	GRADIENT	.04598	-.00212	.00008	.04650	.00028	.00000	.00702	.00002	-.02525	.00013

NR.701.0405 ORB B10C507F1J4W8TE18V5X10

(R0H176) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 REFUSE = .000  
 ELEVON = .000 AIRLON = 10.000  
 NACK/L = .490 LIP = 4.000

RUN NO. 176/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.060	-.09690	.04100	.00090	-.10160	.03395	.00940	.03760	-.03600	.66340	.01707
.201	-1.960	-.00190	.03660	.00030	-.00320	.03851	.00890	.03860	-.04000	.70160	.01704
.201	-.970	.04360	.03620	.00010	.04310	.03996	.00840	.03900	-.04000	.65870	.01722
.201	.040	.09220	.03950	.00000	.09220	.03936	.00800	.03970	-.04300	.66010	.01727
.201	.13720	.04090	.04090	.00000	.13790	.03930	.00750	.04000	-.04400	.66010	.01737
.201	.16340	.04330	.04330	.00010	.16490	.03662	.00720	.04050	-.04600	.65970	.01725
.201	.27230	.09020	.09020	.00040	.27560	.03028	.00600	.04120	-.04800	.65940	.01700
.201	.36740	.06090	.06090	.00030	.37180	.02010	.00480	.04180	-.05100	.65970	.01716
.201	.46130	.07590	.07590	.00060	.46740	.02631	.00330	.04220	-.05300	.65930	.01713
.201	.56360	.09770	.09770	.00040	.57200	.00547	.00200	.04380	-.05600	.66020	.01836
.201	.66670	.12800	.12800	.00150	.66960	-.01928	.00020	.04510	-.05900	.66080	.01930
.201	.77590	.16410	.16410	.00150	.79190	-.03588	-.00040	.04470	-.06200	.66080	.02032
.201	.87010	.21750	.21750	.00330	.89600	-.04106	.00300	.04930	-.07700	.66130	.02165
.201	.91340	.26600	.26600	.00370	.95690	-.02151	-.00360	.03760	-.05400	.65860	.02411
.201	.95310	.33690	.33690	.01590	1.01070	-.02202	-.00500	.02800	-.04200	.65430	.02542
.201	.98300	.38590	.38590	.02930	1.05580	-.02398	-.00600	.02000	-.02700	.65000	.03019
.201	.97560	.42110	.42110	.05940	1.06240	-.02645	-.00320	.01280	-.01100	.63990	.03653
.201	.04528	.00113	.00113	-.00006	.04596	-.00044	-.00042	.00045	-.00149	-.00227	.00001

GRADIENT

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL P01

(R00177) ( 23 JUN 73 )

NR.701.0405 0RB 010C907F1J4MBTE18V5X10

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLORN = 15.000  
 MACX/L = .490 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 50.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 177/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	COF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-.06270	.05070	-.00560	-.06810	.04474	.01300	.05430	-.05400	.63640	.01845
.201	-2.010	.01140	.04950	-.00660	.00970	.04966	.01160	.05540	-.05600	.90630	.01863
.201	-.960	.09930	.05010	-.00730	.05450	.05110	.01110	.05550	-.05600	.70490	.01823
.201	.060	.10960	.05090	-.00780	.10960	.05079	.01040	.05580	-.05900	.66370	.01854
.201	1.070	.15350	.05240	-.00860	.15640	.04952	.00960	.05570	-.06100	.66040	.01893
.201	2.100	.20180	.05360	-.00940	.20330	.04821	.00890	.05600	-.06400	.67660	.01826
.201	4.170	.29050	.06270	-.00890	.29430	.04145	.00710	.05590	-.06500	.67080	.01817
.201	6.240	.36340	.07390	-.00870	.36920	.03175	.00330	.05620	-.06700	.66800	.01822
.201	8.300	.47780	.06970	-.00840	.48570	.01981	.00360	.05600	-.07000	.66620	.01830
.201	10.400	.5790	.11470	-.01280	.59990	.00648	.00170	.05970	-.07600	.66760	.01974
.201	12.480	.66970	.14520	-.01410	.70490	-.00678	.00000	.06110	-.08100	.66720	.02045
.201	14.570	.76910	.18190	-.01070	.80940	-.02294	-.00110	.06180	-.08600	.66470	.02139
.201	16.590	.87590	.23140	-.00890	.90560	-.02840	.00090	.06570	-.09900	.66350	.02205
.201	18.660	.95340	.29720	.00590	.95100	-.06754	-.00070	.05410	-.07500	.65770	.02532
.201	20.690	.93240	.34360	.02450	.93370	-.02804	-.000780	.04240	-.05800	.65110	.02709
.201	22.750	.96440	.39180	.03630	1.04090	-.01167	-.00870	.03180	-.03800	.64740	.03290
.201	24.750	.95200	.42200	.06930	1.04130	-.01539	-.01030	.02540	-.02000	.63600	.03937
.201	GRADIENT	.04556	.00146	-.00047	.04645	-.00041	-.00072	.00016	-.00146	-.05802	-.00004

NR. 701.0403 ORB B18C307F1J4W87E18V2X10

(R0N178) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36.FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B. FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 7.900 AIRLON = 7.900  
 NACX/L = .490 LIP = 4.000

RUN NC. 178/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.000	.05590	.03970	-.06980	.03250	.04353	.00540	.02860	-.02700	1.13680	.01906
.201	-1.920	.14720	.04190	-.07060	.14370	.04688	.00450	.02980	-.02800	.83380	.01877
.201	-.870	.19340	.04410	-.07110	.19270	.04711	.00420	.03000	-.02900	.79250	.01863
.201	.140	.23970	.04710	-.07130	.23990	.04659	.00370	.03030	-.03100	.76670	.01877
.201	1.170	.28440	.05060	-.07090	.28340	.04483	.00320	.03020	-.03000	.74910	.01878
.201	2.200	.32960	.05480	-.07080	.33140	.04217	.00280	.03030	-.03200	.73670	.01865
.201	4.240	.41940	.06630	-.07050	.42310	.03313	.00170	.02970	-.03300	.71970	.01890
.201	6.310	.51290	.08090	-.07120	.51870	.02407	.00040	.02890	-.03300	.70930	.01881
.201	8.410	.61210	.10240	-.07170	.62030	.01177	-.00070	.02850	-.03400	.70140	.01860
.201	10.490	.72210	.13180	-.07650	.73410	-.00179	-.00210	.03180	-.03900	.69740	.01979
.201	12.560	.82340	.16610	-.07760	.83980	-.01693	-.00320	.03220	-.04100	.69310	.02111
.201	14.630	.92820	.20750	-.07860	.95060	-.03371	-.00260	.03080	-.04500	.68960	.02211
.201	16.710	1.02120	.26740	-.08030	1.03490	-.03759	.00130	.03670	-.06000	.68730	.02332
.201	18.720	1.04080	.33760	-.08470	1.09420	-.01423	-.00290	.02410	-.04000	.68120	.02802
.201	20.770	1.05610	.38770	-.08290	1.12490	-.01207	-.00400	.01300	-.02300	.67360	.02991
.201	22.790	1.07270	.43390	-.08360	1.13710	-.01548	-.00460	.00780	-.01000	.66730	.03505
.201	24.810	1.03390	.45530	-.08300	1.12920	-.02043	-.00220	.00330	.00000	.65260	.04423
GRADIENT		.04420	.00320	-.07007	.04502	-.00104	-.00044	.00014	-.00076	-.04421	-.00005



NR.701.0403 CRB B16C5D7F1J4LB7E18V5X10

PARAMETRIC DATA

REFERENCE DATA

SREF = 4.4119 SQ.FT. XDRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YDRP = .0000 INCHES  
BREF = 37.9349 INCHES ZDRP = 16.2000 INCHES  
SCALE = .0403 SCALE

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 RFLARE = .000  
ELEVON = -7.500 AILRON = -7.500  
MAC/L = .490 LIP = 4.000

RUN NO. 179/ 0 RN/L = 1.44 GRADIENT INTERVAL = -9.00/ 5.00

MACH	ALPHA	QL	QDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.140	-.25980	.04590	.07210	-.26210	.02501	-.00730	-.02730	.01900	.75670	.01580
.201	-2.070	-.16680	.03590	.07280	-.16780	.02985	-.00680	-.02850	.01800	.81580	.01829
.201	-1.040	-.11930	.03550	.07340	-.11990	.03135	-.00650	-.02850	.01900	.87980	.01823
.201	.000	-.07110	.03200	.07280	-.07110	.03203	-.00630	-.02910	.02000	1.02720	.01811
.201	1.000	-.02420	.03130	.07250	-.02370	.03180	-.00590	-.02940	.02100	1.73760	.01827
.201	2.000	.02400	.03100	.07300	.02510	.03015	-.00570	-.03000	.02300	-.38070	.01836
.201	4.080	.11720	.03350	.07240	.11930	.02512	-.00500	-.03080	.02500	.44210	.01839
.201	6.170	.21260	.03920	.07130	.21560	.01620	-.00430	-.03180	.02700	.54120	.01807
.201	8.230	.31020	.04940	.07190	.31410	.00448	-.00350	-.03300	.02900	.57770	.01845
.201	10.330	.40630	.06590	.07420	.41180	-.00804	-.00270	-.03367	.03200	.59520	.01882
.201	12.380	.51090	.09010	.07440	.51840	-.02153	-.00200	-.03413	.03300	.60840	.01813
.201	14.450	.61380	.11820	.07560	.62380	-.03871	.00030	-.03480	.03300	.61640	.02002
.201	16.540	.72150	.15740	.07310	.73650	-.05453	.00420	-.03640	.03100	.62430	.02259
.201	18.600	.79460	.21620	.07620	.82200	-.04857	.00550	-.03290	.02900	.62670	.02359
.201	20.660	.84300	.27920	.07820	.86750	-.03622	.00970	-.02750	.01900	.62830	.02481
.201	22.690	.88510	.33080	.08600	.94420	-.03535	.01120	-.02720	.01800	.62720	.02758
.201	24.730	.90360	.38020	.10240	.97980	-.03282	.01200	-.02680	.01700	.62310	.03347
GRADIENT		.04596	-.00125	.00012	.04631	.00004	.00028	-.00041	.00121	-.06477	.00006

NR.701.0405 ORS 816C507F1J4L87V5X10

(R0N180) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 45.5974 INCHES  
 YREF = 11.2999 INCHES YXREF = .0000 INCHES  
 ZREF = 37.9349 INCHES ZXREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .070 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AIRLON = .000  
 MACX/L = .490 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 180/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

PACH	ALPHA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	XCV/L	CAB
.201	-4.090	-.11170	.03290	.00970	-.11370	.02449	.00010	-.00120	.00000	.67790	.01529
.201	-2.010	-.01590	.02930	.00340	-.01690	.02877	.00030	-.00110	.00000	.77520	.01551
.201	-.970	.03220	.02890	.00520	.03170	.02945	.00030	-.00120	.00000	.67060	.01559
.201	.040	.07930	.02940	.00480	.07930	.02940	.00020	-.00150	.00200	.63800	.01574
.201	1.590	.12850	.03090	.00450	.12910	.02833	.00030	-.00120	.00000	.64720	.01586
.201	2.110	.17260	.03330	.00410	.17370	.02699	.00020	-.00130	.00100	.65140	.01575
.201	4.180	.26960	.03980	.00390	.27180	.02011	.00030	-.00130	.00000	.65470	.01594
.201	6.230	.36470	.05020	.00180	.37000	.01016	.00010	-.00180	.00200	.65820	.01590
.201	8.300	.46330	.06530	.00080	.46790	-.00218	.00020	-.00180	.00200	.65930	.01512
.201	10.390	.56560	.08760	.00140	.57210	-.01581	.00010	-.00140	.00100	.65900	.01679
.201	12.480	.67100	.11700	.00080	.68100	-.03087	.00020	-.00150	.00200	.65930	.01830
.201	14.520	.77750	.15180	-.00100	.79050	-.04794	.00210	-.00190	-.00100	.66040	.02049
.201	16.590	.87370	.20630	-.00450	.89630	-.05177	.00820	.00310	-.01600	.66180	.02211
.201	18.650	.92440	.27810	.00090	.96490	-.03212	.00390	.00110	-.00700	.65960	.02396
.201	20.700	.97230	.32920	.01210	1.02590	-.03584	.00400	-.00080	-.00500	.65570	.02404
.201	22.770	1.00390	.38280	.02390	1.07380	-.03554	.00310	-.00130	.00000	.65200	.02992
.201	24.770	.98990	.41740	.03560	1.07340	-.03555	.00420	-.00370	.00300	.64140	.03620
.201	GRADIENT	.04609	.00090	-.00024	.04660	-.00031	.00001	-.00002	.00005	-.00676	.00008

DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-NAAL F01

(RDN181) ( 23 JUN 75 )

NR.701.0405 058 B16C507F1J4B7V5X10

REFERENCE DATA

SREF = 4.4119 50.FT. XGRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 4.000 B.FLAP = -10.000  
RUDDER = .000 RFLARE = .000  
ELEVON = .000 AILRON = .000  
MACX/L = .490 LIP = 4.000

RUN NO. 181/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.090	-11.080	.02890	.00320	-.11240	.02100	.00380	-.00250	-.08300	.67020	.01850
.201	-2.010	-.01570	.02830	.00240	-.01660	.02577	.00380	-.00340	-.08100	.71310	.01810
.201	-.940	.03100	.02590	.00220	.03060	.02651	.00390	-.00370	-.08200	.63350	.01642
.201	.030	.07860	.02630	.00160	.07890	.02624	.00400	-.00390	-.08200	.65140	.01678
.201	1.080	.12540	.02810	.00140	.12590	.02582	.00400	-.00420	-.08200	.65580	.01642
.201	2.090	.17540	.03040	.00120	.17440	.02411	.00410	-.00480	-.08100	.65730	.01674
.201	4.170	.26910	.03720	.00080	.27110	.01754	.00430	-.00550	-.08000	.65900	.01703
.201	6.220	.36420	.04780	-.00040	.36750	.02810	.00430	-.00640	-.07900	.66080	.01725
.201	8.320	.46480	.06380	-.00120	.46910	-.02413	.00450	-.00830	-.08700	.66150	.01796
.201	10.370	.56440	.08470	-.00120	.57040	-.03403	.00460	-.00990	-.08100	.66040	.01810
.201	12.480	.66470	.11200	-.00080	.67350	-.05082	.00460	-.00890	-.08600	.66010	.01958
.201	14.530	.76900	.14690	-.00040	.78120	-.06272	.00460	-.00830	-.08600	.66280	.02100
.201	16.610	.86520	.19910	-.00110	.97650	-.03289	.00460	-.00340	-.09400	.66040	.02251
.201	18.680	.93930	.26140	-.00110	.97360	-.03648	.01070	-.00630	-.09200	.65720	.02599
.201	20.740	.96530	.32660	.00780	1.01840	-.03137	.00990	-.01270	-.08500	.65100	.02939
.201	22.720	.99050	.37670	.02620	1.04390	-.03469	.01230	-.01870	-.06400	.64470	.03758
.201	24.790	1.00200	.42460	.04620	1.08770	-.03469	.01230	-.00035	-.00028	-.00309	.00005
.201	GRADIENT	.04999	.00101	-.00031	.04645	-.007241	.00706				

(RDN.22) ( 23 JUN 75 )

NR.701.0405 058 B16C507F1J4B7V5X10

PARAMETRIC DATA

ALPHA = .000 B.FLAP = -10.000  
RUDDER = .000 RFLARE = .000  
ELEVON = .000 AILRON = .000  
MACX/L = .490 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 50.FT. XGRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 182/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.10290	.01230	-.00670	.10240	.01214	-.00800	.00390	.24300	.69030	.02190
.201	-6.030	.09840	.02020	-.00410	.09240	.02021	-.00390	.00370	.18600	.87610	.01856
.201	-4.030	.08370	.02660	.00110	.08360	.02873	-.00290	.00180	.08200	.65500	.01643
.201	-2.020	.06270	.02890	.00370	.06270	.02865	-.00120	.00020	.04200	.64390	.01624
.201	.000	.07890	.02930	.00430	.07890	.02873	.00070	-.00130	.00000	.64010	.01645
.201	2.010	.07920	.02870	.00340	.07920	.02873	.00230	-.00270	-.04000	.64450	.01658
.201	4.010	.07910	.02870	.00190	.07920	.02865	.00440	-.00400	-.08100	.63280	.01706
.201	6.030	.07960	.02040	-.00300	.07960	.02042	.00710	-.00590	-.16500	.67380	.01880
.201	12.080	.08350	.01290	-.00770	.08350	.01268	-.00900	-.00900	-.24900	.69340	.02191
.201	GRADIENT	-.00083	-.00002	.00003	-.00083	-.00001	.00091	-.00072	-.02029	-.00019	.00008

NR.701.0405 ORB B16C507F1J4687V5X10

(RDM183) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36. FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 183/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 B. FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ATLURON = .000  
 MACK/L = .490 LIP = 4.000

MACN	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.100	.33480	.02980	-.00980	.33610	-.00266	-.00830	.01000	.25200	.87020	.02338
.201	-8.040	.33100	.03680	-.00340	.33290	.00639	-.00730	.01720	.17100	.68590	.01982
.201	-4.020	.32440	.04230	-.00090	.32690	.01274	-.00340	.01280	.08500	.66100	.01693
.201	-2.020	.31970	.04420	.00120	.32230	.01508	-.00140	.00050	.04300	.65690	.01617
.201	.000	.31780	.04440	.00200	.32030	.01547	.00060	-.00150	.00100	.65770	.01638
.201	1.990	.31580	.04350	.00110	.31850	.01471	.00230	-.00350	-.03900	.65680	.01669
.201	4.010	.31770	.04180	-.00030	.32020	.01292	.00480	-.00370	-.06200	.66040	.01733
.201	8.040	.31850	.03650	-.00470	.32030	.00753	.00680	-.00970	-.16900	.66530	.01932
.201	12.080	.31870	.02970	-.00830	.32000	.00076	.01100	-.01200	-.25700	.66930	.02245
GRADIENT	-.0726	-.00008	-.00008	.00006	-.00086	-.00000	.00101	-.00105	-.02071	-.00006	.00007

## REFERENCE DATA

SREF = 4.4119 36. FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

NR.701.0405 ORB B16C507F1J4687V5X10

(RDM184) ( 23 JUN 75 )

## PARAMETRIC DATA

ALPHA = 10.000 B. FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ATLURON = .000  
 MACK/L = .490 LIP = 4.000

RUN NO. 184/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.100	.58010	.07320	-.01230	.58410	-.03034	-.01010	.01480	.26300	.66730	.02364
.201	-8.050	.57800	.08070	-.00670	.58120	-.02435	-.00840	.01100	.17200	.66410	.02069
.201	-4.050	.57040	.08580	-.00250	.57650	-.01833	-.00330	.06340	.08200	.66180	.01838
.201	-2.020	.56740	.08700	-.00050	.57380	-.01564	-.00110	.00240	.04000	.66030	.01782
.201	-.010	.56590	.08800	.00090	.57250	-.01536	.00050	-.00100	.05100	.65940	.01742
.201	1.990	.56570	.08690	.00050	.57210	-.01637	.00240	-.00480	-.03900	.65980	.01781
.201	4.000	.56580	.08520	-.00120	.57170	-.01616	.00470	-.00790	-.08100	.66070	.01841
.201	8.040	.56570	.08080	-.00500	.57100	-.02259	.00980	-.01360	-.17100	.66310	.01967
.201	12.080	.56220	.07490	-.00930	.56850	-.02753	.01280	-.01760	-.26600	.66590	.02223
GRADIENT	-.00056	-.00006	-.00006	.00018	-.00056	.00003	.00097	-.00168	-.02018	-.00012	.00000

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL F01

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NR.701.0405 QMB B16C507F1J4MB7V3X10

(RDN185) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36. FT. XGRP = 43.5974 INCHES  
 YREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 185/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 15.0000 B.FLAP = -18.0000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = .0000  
 NACK/L = .490 LIP = 4.000

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.84180	.17240	-.02170	.85700	-.03989	-.00410	.01750	.25300	.66910	.02415
.201	-8.090	.84040	.17450	-.01280	.85640	-.03756	-.00470	.01250	.16700	.66530	.02119
.201	-4.020	.83970	.18330	-.07980	.85810	-.04900	.00130	.00590	.07700	.66410	.01996
.201	-2.030	.83770	.18560	-.00760	.85680	-.04610	.00440	.00400	.03200	.66320	.02119
.201	-.010	.83350	.18550	-.00390	.85270	-.04515	.00740	.00100	-.01000	.66240	.02141
.201	2.000	.82840	.18330	-.00330	.84720	-.04600	.01020	-.00160	-.05600	.66220	.02122
.201	4.000	.82560	.18250	-.00700	.84430	-.04581	.01280	-.00400	-.09900	.66290	.02060
.201	8.030	.82620	.16710	-.00840	.84070	-.06077	.00820	-.01320	-.16700	.66350	.01997
.201	12.070	.82980	.16950	-.01900	.84480	-.03943	.00750	-.01910	-.25700	.66800	.02228
GRADIENT		-.00187	-.00019	.00039	-.00165	.00032	.00143	-.00127	-.02192	-.00017	.00007

NR.701.0405 QMB B16C507F1J4MB7V3X10

(RDN186) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36. FT. XGRP = 43.5974 INCHES  
 YREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 18.0000 B.FLAP = -18.0000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = .0000  
 NACK/L = .490 LIP = 4.000

RUN NO. 186/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.94190	.28100	-.03160	1.00130	-.04182	-.00560	.00390	.27500	.67130	.02512
.201	-8.040	.94090	.28210	-.02000	.99080	-.03701	-.00870	.00800	.16000	.66720	.02372
.201	-4.020	.93930	.28100	-.00660	.97600	-.03322	-.00310	.00720	.08200	.66240	.02350
.201	-2.030	.93070	.28030	-.00220	.97140	-.03252	.00050	.00400	.03900	.66090	.02397
.201	-.010	.92530	.27940	.00070	.96600	-.03137	.00380	.00150	-.00500	.65970	.02413
.201	1.990	.92240	.27870	.00050	.96240	-.03309	.00620	-.00220	-.04600	.65960	.02478
.201	4.010	.93450	.27140	-.00370	.97220	-.04203	.01150	.00120	-.10300	.66130	.02347
.201	8.080	.92970	.27040	-.01060	.96740	-.04130	.01490	-.00710	-.19100	.66400	.02365
.201	12.070	.92310	.26420	-.01830	.95920	-.04496	.01140	-.01130	-.27400	.66680	.02550
GRADIENT		-.00049	-.00114	.00042	-.00082	-.00091	.00174	-.00091	-.02266	-.00016	.00008

NR. T01.0403 ORB B16C507F1J4-87V5K5X10

(IDM187) ( 23 JUN 73 )

REFERENCE DATA

SACF = 4.4119 54.FT. 1972 = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.7000 INCHES  
 SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = .070 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AIRLIN = .000  
 NACA/L = .490 LIP = 4.000

RUN NO. 187/ 0 BNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WAO	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.090	-1.1140	.03390	.00660	-.11670	.02307	.01300	-.00900	-.03100	.60090	.01568
.202	-2.010	-.01770	.03070	.00610	-.01880	.03012	.01290	-.00830	-.03030	.77630	.01612
.203	-.990	.02940	.03030	.00630	.02890	.03068	.01280	-.00790	-.03000	.93100	.01643
.204	.030	.07640	.03120	.00590	.07650	.03122	.01270	-.00750	-.02900	.63200	.01625
.205	1.080	.1410	.03240	.00520	.12470	.03016	.01260	-.00730	-.02800	.64480	.01631
.206	2.060	.17180	.03490	.00460	.17300	.02864	.01260	-.00690	-.02600	.84980	.01631
.207	4.160	.24770	.04060	.00450	.27120	.02115	.01240	-.00640	-.02530	.63400	.01680
.208	6.240	.36770	.05180	.00210	.36880	.01175	.01230	-.00620	-.02400	.65790	.01628
.209	8.290	.46210	.06700	.00150	.46700	-.00030	.01230	-.00560	-.02400	.65980	.01635
.210	10.390	.56470	.08900	.00220	.57150	-.01430	.01180	-.00450	-.02400	.65880	.01726
.211	12.450	.66870	.11670	.00120	.67880	-.02907	.01190	-.00430	-.02300	.65930	.01891
.212	14.530	.77500	.15300	.00030	.78680	-.04636	.01340	-.00400	-.02200	.65980	.02033
.213	16.640	.87450	.20770	-.00210	.89700	-.05148	.01970	-.00330	-.02100	.66080	.02188
.214	18.650	.92470	.27950	.00180	.96550	-.03099	.01530	-.00020	-.02100	.65930	.02414
.215	20.700	.97140	.33020	.01280	1.02540	-.03457	.01610	-.00180	-.02800	.65550	.02473
.216	22.750	1.00420	.38453	.02410	1.07480	-.03344	.01540	-.00310	-.02300	.65190	.03012
.217	24.780	.96740	.41910	.05700	1.07280	-.03315	.01700	-.00640	-.02100	.64090	.03805
.218	.04645	.00000	.00000	-.00030	.04698	-.00050	-.00207	.00032	.00079	-.00683	.00010

GRADIENT

DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-NAL 701

NR. 701.0403 CRB 816C507F1J48TVSR5X10

(RDN189) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 50.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

BETA = 4.000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NAC/L = .490 LIP = 4.000

PARAMETRIC DATA

RUN NO. 189/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.090	-1.1190	.03030	.00310	-1.1480	.02224	.01575	-1.01000	-1.11200	.66980	.01677
.201	-2.020	-1.0170	.02750	.00260	-1.01800	.02696	.01600	-1.00990	-1.11300	.71240	.01643
.201	-1.990	.02930	.02740	.00250	.02880	.02797	.01590	-1.00990	-1.11100	.62860	.01692
.201	.040	.07670	.02810	.00220	.07650	.02811	.01580	-1.01000	-1.09700	.64960	.01713
.201	1.050	.12350	.02970	.00170	.12400	.02745	.01590	-1.00990	-1.09700	.65900	.01680
.201	2.040	.17140	.03170	.00160	.17240	.02552	.01600	-1.01010	-1.09500	.65630	.01707
.201	4.130	.26770	.03690	.00070	.26930	.01906	.01580	-1.01000	-1.08600	.65890	.01724
.201	6.240	.36470	.04690	-1.00260	.36790	.00903	.01560	-1.01040	-1.05300	.66080	.01767
.201	8.300	.46230	.06430	-1.00100	.46700	-1.00314	.01510	-1.01070	-1.04070	.66060	.01812
.201	10.360	.56090	.08570	-1.00110	.56720	-1.01653	.01520	-1.01090	-1.04000	.66070	.01797
.201	12.450	.66000	.11340	-1.00060	.67480	-1.02784	.01530	-1.01100	-1.05000	.66030	.01856
.201	14.510	.76790	.14850	-1.00040	.78060	-1.04889	.01700	-1.00980	-1.10000	.66010	.01932
.201	16.590	.86170	.19930	-1.00680	.90190	-1.06078	.01640	-1.01020	-1.11000	.66270	.02075
.201	18.670	.95200	.26270	-1.00060	.97900	-1.03149	.01950	-1.00360	-1.17000	.66030	.02267
.201	20.700	.96470	.32770	-1.00620	1.01830	-1.03456	.02120	-1.00670	-1.15000	.65700	.02593
.201	22.750	.97800	.37600	-1.02680	1.04980	-1.02994	.02340	-1.01350	-1.02000	.65080	.02955
.201	24.760	.99580	.42350	-1.05130	1.05130	-1.02769	.02340	-1.01700	-1.09000	.64390	.03719
.201	GRADIENT	.04610	.00101	-1.00029	.04636	-1.00037	.02301	-1.00001	.00080	-.00237	.00005

NR. 701.0403 CRB 816C507F1J48TVSR5X10

(RDN189) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 50.FT. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

ALPHA = .000 B.FLAP = -18.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NAC/L = .490 LIP = 4.000

PARAMETRIC DATA

RUN NO. 189/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.040	.09960	.01410	-1.00690	.09960	.01410	.00320	-1.00090	.22300	.66490	.02129
.201	-8.040	.09960	.02240	-1.00190	.09960	.02236	.00430	-1.00180	.14300	.66740	.01774
.201	-4.020	.08310	.02920	-1.00360	.08310	.02915	.00870	-1.00470	.03700	.64430	.01826
.201	-2.020	.07930	.03080	-1.00350	.07960	.03082	.01090	-1.00420	.01400	.63900	.01810
.201	.000	.07710	.03140	-1.00370	.07710	.03139	.01280	-1.00790	-.02700	.63310	.01820
.201	2.000	.07620	.03060	-1.00440	.07630	.03022	.01410	-1.00380	-.03100	.63910	.01665
.201	4.010	.07700	.02830	-1.00190	.07700	.02830	.01370	-1.01000	-.10800	.65100	.01688
.201	6.040	.06000	.02120	-1.00290	.06000	.02123	.01710	-1.01100	-.19000	.67270	.01969
.201	12.040	.06000	.01800	-1.00810	.06000	.01996	.01350	-1.00690	-.26700	.66760	.02212
.201	GRADIENT	-.00077	-.00012	-1.00022	-.00077	-.00011	.00066	-.00066	-.02047	.00087	.00009

MR.701.0405 ORB 816C507F1J4487V365X10

(RDN190) (23 JUN 73)

## REFERENCE DATA

SREF = 4.4119 58.FT. 1000P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 2000P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 5.000 9.FLAP = -14.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

RUN NO. 190/ 0 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.33300	.03070	-.00040	.33440	.00036	.00040	.00680	.23100	.66900	.02311
.201	-6.040	.32690	.03690	-.00290	.32910	.00665	.00260	.00310	.14800	.65370	.01901
.201	-4.020	.32240	.04400	.00130	.32500	.01437	.00800	-.00170	.04970	.65850	.01719
.201	-2.000	.31910	.04370	.00310	.32190	.01660	.01030	-.00410	.01600	.65550	.01687
.201	-.010	.31670	.04640	.00280	.31960	.01749	.01230	-.00620	-.02500	.65670	.01628
.201	1.990	.31560	.04510	.00200	.31840	.01633	.01330	-.00800	-.06400	.65770	.01696
.201	4.010	.31770	.04320	.00310	.31960	.01435	.01600	-.01030	-.10700	.65970	.01747
.201	6.030	.31630	.03610	-.00410	.32040	.00912	.01890	-.01340	-.10300	.66180	.01932
.201	12.090	.31790	.03220	-.00660	.31890	.00236	.01900	-.01480	-.27600	.66770	.02300
.201	GRADIENT	-.00071	-.00011	-.00017	-.00071	-.00074	.00096	-.00105	-.02044	.00016	.00004

MR.701.0405 ORB 816C507F1J4487V365X10

(RDN191) (23 JUN 73)

## REFERENCE DATA

SREF = 4.4119 58.FT. 1000P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 2000P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 9.FLAP = -16.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

RUN NO. 191/ 0 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.37790	.07630	-.01130	.36220	-.02697	-.00090	-.01230	.24300	.66710	.02340
.201	-6.040	.37270	.08210	-.00540	.37810	-.007231	.00000	.00480	.15000	.66330	.02087
.201	-4.020	.36800	.08780	-.00070	.37430	-.01583	.00760	.00210	.05900	.66040	.01830
.201	-2.000	.36480	.08690	.00120	.37180	-.01420	.01000	-.00080	.01600	.65910	.01771
.201	-.010	.36420	.08970	.00190	.37110	-.01333	.01190	-.00430	-.02400	.65880	.01736
.201	1.990	.36430	.08660	.00030	.37120	-.01427	.01310	-.00790	-.06300	.65970	.01739
.201	4.000	.36480	.08710	-.00190	.37100	-.01585	.01510	-.01120	-.10400	.66110	.01810
.201	6.040	.36380	.08240	-.00470	.36990	-.02041	.01860	-.01590	-.19200	.66290	.01977
.201	12.070	.36390	.07710	-.00790	.36820	-.02334	.02230	-.01980	-.29000	.66500	.02271
.201	GRADIENT	-.00035	-.00008	-.00016	-.00037	-.00001	.00068	-.00168	-.02121	.00010	-.00004



DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL 701

NR.701.0405 ORB B16C507F1J4W87V5R5X10

(RDN192) ( 23 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 15.000 B.FLAP = -16.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACV/L = .490 LIP = 4.000

RUN NO. 192/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.83940	.17400	-.02210	.85530	-.03769	.00400	.01650	.23700	.66920	.02364
.201	-8.040	.83670	.17560	-.01270	.85510	-.03575	.00490	.01080	.14800	.66530	.02129
.201	-4.030	.83740	.18410	-.00750	.85610	-.04755	.01220	.00410	.05400	.66310	.02007
.201	-2.030	.83330	.18590	-.00550	.85270	-.04458	.01580	.00190	.00700	.66230	.02098
.201	-.010	.83230	.18690	-.00500	.85190	-.04349	.01880	-.00070	-.03700	.66210	.02123
.201	1.980	.82820	.18480	-.00480	.84750	-.04429	.02100	-.00360	-.08000	.66200	.02080
.201	4.000	.82670	.18250	-.00590	.84530	-.04636	.02280	-.00630	-.12300	.66250	.01996
.201	6.040	.82750	.16940	-.00790	.84260	-.05887	.01710	-.01620	-.18800	.66330	.02013
.201	12.050	.83050	.17190	-.01830	.84620	-.03714	.01590	-.02020	-.27900	.66770	.02271
.201	GRADIENT	-.00132	-.00021	.00019	-.00173	.00013	.00132	-.00131	-.02197	-.00007	-.00002

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 16.000 B.FLAP = -16.000  
 RUDDER = -7.500 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACV/L = .490 LIP = 4.000

RUN NO. 193/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.110	.96420	.28280	-.03180	1.00400	-.04141	.00140	.00360	.26000	.67130	.02499
.201	-8.030	.95080	.28480	-.01940	.99190	-.03508	.00070	.00680	.16300	.66700	.02410
.201	-4.030	.93520	.28350	-.00600	.97670	-.03130	.00780	.00520	.06300	.66220	.02368
.201	-2.030	.92800	.28110	.00020	.96920	-.03122	.01210	.00230	.01600	.65990	.02436
.201	-.020	.92300	.28110	.00290	.96440	-.02961	.01900	-.00090	-.02600	.65900	.02393
.201	1.970	.92080	.27870	.00210	.96150	-.03789	.01750	-.00300	-.07000	.65920	.02411
.201	4.000	.93230	.27290	-.00240	.97060	-.04022	.02210	.00000	-.12500	.66080	.02324
.201	6.030	.93060	.27320	-.01080	.96910	-.03952	.02350	-.00780	-.21000	.66400	.02429
.201	12.070	.92780	.26810	-.01720	.96480	-.04322	.01930	-.01170	-.29400	.66640	.02586
.201	GRADIENT	-.00064	-.00116	.00045	-.00099	-.00088	.00170	-.00076	-.02303	-.00017	-.00008

DATE 27 SEP 73

(R0N194) ( 25 JUN 73 )

TABULATED SOURCE FORCE DATA-NAL 701  
NR.701.0405 ORB 816C50771J4W67V5R5X10

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
RUDDER = -15.000 FLARES = .000  
ELEVON = .000 AILRON = .000  
MACX/L = .490 LIP = 4.000

REFERENCE DATA

SRF " 4.4119 54.17. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 194/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	YCP/L	CAB
.201	-4.070	-1.1710	.03270	.01120	-1.1910	.02430	.02360	-.01520	-.05600	.69380	.02267
.201	-2.000	-.02240	.02930	.01030	-.02340	.02850	.02370	-.01400	-.05900	.82050	.02271
.201	-.980	.02650	.02930	.01020	.02600	.02980	.02360	-.01340	-.05300	.51850	.02272
.201	.067	.07320	.02970	.00970	.07320	.02969	.02350	-.01300	-.05300	.61210	.02255
.201	1.070	.11990	.03080	.00930	.12050	.02857	.02370	-.01220	-.05300	.63200	.02326
.201	2.100	.16890	.03270	.00910	.17000	.02653	.02360	-.01200	-.05100	.64070	.02334
.201	4.170	.26130	.03910	.00810	.26510	.01991	.02360	-.01080	-.05000	.64900	.02329
.201	6.270	.36250	.04980	.00600	.36580	.00996	.02340	-.01000	-.04800	.65400	.02294
.201	8.310	.45890	.06490	.00500	.46350	-.00205	.02330	-.00890	-.04700	.65610	.02297
.201	10.400	.55960	.08690	.00530	.56500	-.01627	.02300	-.00750	-.04700	.65650	.02378
.201	12.500	.66890	.11350	.00460	.67800	-.03201	.02320	-.00670	-.04700	.65750	.02596
.201	14.550	.77250	.14990	.00320	.78550	-.04911	.02460	-.00620	-.05000	.65850	.02765
.201	16.620	.87140	.20310	.00080	.89310	-.05459	.03090	-.00010	-.05500	.65960	.02968
.201	18.660	.92860	.27500	.00440	.96800	-.03578	.02640	-.00100	-.05100	.65830	.03270
.201	20.720	.97420	.32660	.01600	1.02680	-.03931	.02720	-.00230	-.04800	.65430	.03500
.201	22.760	1.00610	.37950	.02720	1.07460	-.03927	.02670	-.00390	-.04800	.65080	.03938
.201	24.790	.99100	.41200	.06250	1.07250	-.04151	.02820	-.00500	-.04700	.63900	.04775
.201		.04820	.00078	-.00037	.04670	-.00033	-.00000	.00015	.00074	-.00982	.00010

GRADIENT

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAL T01

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NR.T01.0405 ORB B16C5D7F1J487V5R5X10

(RDN195) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 50-FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 195/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = 4.000 B.FLAP = -10.000  
 RUDDER = -15.000 FLAPES = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .490 LIP = 4.000

MAOH	ALPHA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.060	-1.1420	.02850	.00670	-1.1590	.02035	.02670	-0.01650	-1.1700	.68090	.02364
.201	-1.990	-0.1970	.02350	.00620	-0.0080	.02487	.02700	-0.01610	-1.1600	.76950	.02377
.201	-9.970	.02740	.02590	.00390	.02690	.02600	.02690	-0.01570	-1.1600	.58090	.02362
.201	.080	.07580	.02600	.00560	.07580	.02593	.02700	-0.01550	-1.1500	.63290	.02368
.201	1.070	.12150	.02750	.00310	.12180	.02522	.02710	-0.01550	-1.1400	.64470	.02375
.201	2.130	.16880	.02920	.00470	.16980	.02297	.02710	-0.01520	-1.1300	.64990	.02415
.201	4.160	.26400	.03600	.00420	.26590	.01677	.02750	-0.01470	-1.1300	.65420	.02415
.201	6.270	.36390	.04750	.00200	.36690	.00726	.02670	-0.01440	-1.1300	.65880	.02388
.201	8.300	.46040	.05210	.00140	.46450	-.00500	.02570	-0.01410	-1.1200	.65880	.02450
.201	10.390	.56180	.06300	.00180	.56750	-.01967	.02590	-0.01380	-1.1200	.65880	.02520
.201	12.460	.66350	.11050	.00190	.67170	-.03525	.02640	-0.01340	-1.1200	.65890	.02516
.201	14.580	.76980	.14650	.00120	.78180	-.05184	.02800	-0.01200	-1.1300	.65940	.02647
.201	16.670	.88480	.19920	-.00490	.90450	-.06350	.03740	-0.01190	-1.1300	.66190	.02748
.201	18.680	.94580	.26220	-.00030	.97380	-.08454	.03550	-0.00420	-1.1400	.66010	.02968
.201	20.740	.97310	.32570	.00980	1.02540	-.09995	.03190	-0.00590	-1.1400	.65690	.03397
.201	22.770	1.00580	.38100	.02200	1.07470	-.09801	.03240	-0.00710	-1.1300	.65280	.03856
.201	24.790	.99800	.41660	.05370	1.02870	-.04026	.03250	-0.01570	-1.1500	.64210	.04604
.201	GRADIENT	.04596	.00091	-.00032	.04641	-.00044	.00006	.00020	.00056	-.00652	.00006

## REFERENCE DATA

SREF = 4.4119 50-FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 196/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = .000 B.FLAP = -18.000  
 RUDDER = -15.000 FLAPES = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .490 LIP = 4.000

MAOH	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.09800	.01000	-.00360	.09800	.00990	.01320	-0.00570	.20100	.67340	.02888
.201	-6.030	.09100	.01990	.00210	.09100	.01985	.01560	-0.00720	.11700	.65140	.02475
.201	-4.000	.07990	.02770	.00740	.07990	.02766	.02060	-0.01080	.03000	.62650	.02314
.201	-2.020	.07620	.02990	.00930	.07630	.02985	.02210	-0.01160	-0.01000	.61810	.02291
.201	.000	.07450	.03070	.00970	.07450	.03064	.02350	-0.01240	-0.01000	.61310	.02284
.201	2.000	.07270	.02890	.00790	.07270	.02888	.02450	-0.01340	-0.09100	.62060	.02371
.201	4.010	.07500	.02680	.00510	.07310	.02657	.02690	-0.01520	-0.13500	.63450	.02372
.201	6.030	.07580	.02030	.00160	.07560	.02026	.02600	-0.01490	-0.20900	.65100	.02688
.201	12.080	.07990	.01180	-.00320	.07990	.01179	.02320	-0.01220	-0.28500	.67440	.03068
.201	GRADIENT	-.00066	-.00018	-.00030	-.00066	-.00016	.00075	-.00035	-.02031	.00103	.00010

NR.701.0403 ORB 816C507F1J4487V5R5X10

(R0N197) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 UREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0403 SCALE

ALPHA = 5.000 B.FLAP = -16.000  
 RUDDER = -15.000 FLARES = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .490 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 197/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.33040	.02560	-.00700	.33130	-.00427	.01050	.001360	.20700	.66760	.03150
.201	-8.020	.32670	.03660	-.00100	.32860	.00675	.01370	-.00090	.12400	.66100	.02562
.201	-4.010	.32010	.04260	.00400	.32260	.01336	.01970	-.00390	.03300	.55540	.02410
.201	-2.010	.31640	.04460	.00370	.31920	.01565	.02160	-.00810	-.00800	.63350	.02333
.201	.000	.31540	.04480	.00620	.31820	.01595	.02300	-.00980	-.04800	.63290	.02343
.201	2.000	.31450	.04340	.00410	.31710	.01450	.02390	-.01160	-.04600	.63520	.02400
.201	4.000	.31650	.04170	.00210	.31910	.01265	.02700	-.01400	-.13100	.63760	.02415
.201	6.040	.31690	.03580	-.00130	.31890	.00696	.02670	-.01680	-.21400	.66150	.02716
.201	12.070	.31560	.02820	-.00420	.31690	-.00056	.02560	-.01660	-.29000	.66480	.03184
GRADIENT		-.00044	-.00015	-.00027	-.00045	-.00011	.00084	-.00098	-.02027	.00030	.00004

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 UREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0403 SCALE

ALPHA = 10.000 B.FLAP = -16.000  
 RUDDER = -15.000 FLARES = .000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .490 LIP = 4.000

## PARAMETRIC DATA

NR.701.0403 ORB 816C507F1J4487V5R5X10

(R0N198) ( 23 JUN 73 )

RUN NO. 198/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.070	.57770	.07090	-.01060	.58100	-.03452	.00860	.01030	.22200	.66650	.03234
.201	-8.020	.57560	.07930	-.00490	.57850	-.02351	.01310	.00550	.12600	.66300	.02799
.201	-4.010	.56770	.08600	.00080	.57390	-.01779	.01930	-.00080	.03300	.65940	.02524
.201	-2.000	.56420	.08730	.00310	.57070	-.01590	.02150	-.00380	-.00700	.65800	.02491
.201	.000	.56240	.08660	.00300	.56920	-.01424	.02310	-.00720	-.04700	.65800	.02395
.201	2.000	.56490	.08740	.00180	.57140	-.01588	.02360	-.01050	-.08400	.65800	.02463
.201	4.020	.56610	.08500	.00010	.57210	-.01851	.02580	-.01360	-.12600	.65980	.02546
.201	6.040	.56480	.08020	-.00270	.57010	-.02300	.02670	-.01810	-.21300	.66170	.02685
.201	12.090	.56450	.07400	-.00700	.56860	-.02901	.03010	-.02170	-.30600	.66440	.03048
GRADIENT		-.00012	-.00010	-.00013	-.00014	-.00007	.00075	-.00161	-.01969	.00008	.00001

DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-WAL 701

NR.701.0405 ORB B16C50751J4W87V5R5X10

(RDN199) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

ALPHA = 15.000 8. FLAP = -10.000  
RUDDER = -15.000 FLARES = .000  
ELEVON = .000 AILRON = .000  
NACX/L = .490 LIP = 4.000

PARAMETRIC DATA

RUN NO. 199/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.84000	.18910	-.02130	.85450	-.06291	.01900	.01510	.22000	.66690	.03258
.201	-8.040	.83850	.17250	-.01070	.85370	-.06005	.01580	.00920	.12700	.66450	.02999
.201	-4.020	.83580	.18050	-.00390	.85170	-.05028	.02400	.00270	.02800	.66160	.02764
.201	-2.020	.83050	.18190	-.00260	.84880	-.04794	.02710	.00030	-.01700	.66110	.02869
.201	.000	.83010	.18320	-.00200	.84880	-.04670	.02990	-.00250	-.06000	.66080	.02905
.201	2.000	.82700	.18220	-.00270	.84580	-.04679	.03180	-.00530	-.10300	.66110	.02846
.201	4.010	.82790	.18610	-.00430	.84580	-.04905	.03330	-.00830	-.14400	.66180	.02793
.201	6.040	.83280	.16980	-.00860	.84780	-.06039	.02650	-.01830	-.20810	.66360	.02734
.201	12.100	.83300	.16940	-.01810	.84790	-.06061	.02330	-.02100	-.29400	.66780	.03109
	GRADIENT	-.00076	-.00002	-.00004	-.00075	.00018	.00116	-.00137	-.02141	.00002	.00002

NR.701.0405 ORB B16C50751J4W87V5R5X10

(RDN200) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

ALPHA = 18.000 8. FLAP = -10.000  
RUDDER = -15.000 FLARES = .000  
ELEVON = .000 AILRON = .000  
NACX/L = .490 LIP = 4.000

PARAMETRIC DATA

RUN NO. 200/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.96270	.27820	-.02930	1.00110	-.04325	.01020	.00180	.24200	.87050	.03275
.201	-8.040	.94650	.27920	-.01540	.98610	-.03891	.01180	.00540	.13900	.66560	.03214
.201	-4.020	.93500	.28000	-.00250	.97550	-.03433	.01980	.00340	.03700	.66080	.03191
.201	-2.020	.93110	.27890	.00210	.97140	-.03411	.02340	.00200	-.00900	.65910	.03278
.201	.000	.92830	.27940	.00320	.96890	-.03272	.02640	-.00020	-.00530	.65880	.03187
.201	2.000	.92870	.27870	.00250	.96650	-.03475	.02870	-.00320	-.09670	.65900	.03194
.201	4.010	.94110	.27350	-.00290	.97910	-.04250	.03260	-.00080	-.14900	.66100	.03055
.201	6.040	.93590	.27200	-.00930	.97370	-.04210	.03230	-.00880	-.22900	.66340	.03195
.201	12.070	.93590	.26640	-.01790	.97190	-.04743	.02690	-.01170	-.31100	.66660	.03464
	GRADIENT	.00039	-.00076	-.00004	.00011	-.00085	.00154	-.00068	-.02266	.00001	-.00018

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-MAL 701

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NR.701.0405 ORB B16C507F1J4.87X10

(R0N201) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = .000 B.FLAP = -16.000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .490 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 201/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CL	CLF	CLM	CLN	CAF	CN	CSL	CY	XCP/L	CAB
.201	-12.060	.09730	.01060	-.00330	.03800	.01071	.09730	-.01420	.11300	.67210	.02735
.201	-6.030	.09410	.01770	-.00030	.02370	.01760	.09410	-.00960	.07400	.66130	.02206
.201	-4.010	.08700	.02240	.00260	.01290	.02227	.08700	-.00340	.03600	.64910	.01791
.201	-2.020	.08400	.02320	.00390	.00630	.02315	.08400	-.00300	.01800	.64310	.01696
.201	-.010	.08260	.02310	.00440	.00000	.02303	.08260	-.00070	.00100	.64060	.01694
.201	1.990	.08060	.02260	.00390	-.00620	.02254	.08060	.00140	-.01500	.64230	.01780
.201	4.000	.08170	.02140	.00350	-.01250	.02133	.08150	.00350	-.03300	.64450	.01679
.201	8.000	.08360	.01690	.00070	.00850	.01685	.08360	.00850	-.07100	.65670	.02323
.201	12.000	.08260	.01090	-.00290	.03780	.01072	.08260	.01320	-.11300	.67260	.02776
GRADIENT	-.00071	-.00013	-.00013	.00009	-.00316	-.00012	-.00071	.00111	-.00854	-.00050	.00012

## REFERENCE DATA

SREF = 4.4119 36.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

ALPHA = 5.000 B.FLAP = -16.000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .490 LIP = 4.000

## PARAMETRIC DATA

NR.701.0405 ORB B16C507F1J4.87X10

(R0N202) ( 23 JUN 75 )

RUN NO. 202/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CL	CLF	CLM	CLN	CAF	CN	CSL	CY	XCP/L	CAB
.201	-12.070	.33110	.02830	-.00400	.03590	-.00195	.33230	-.00260	.12600	.66440	.02796
.201	-6.040	.33030	.03430	-.00260	.02400	.00417	.33210	-.00160	.08300	.66280	.02294
.201	-4.020	.32690	.03790	-.00070	.01150	.00976	.32900	-.00110	.04100	.66080	.01662
.201	-2.020	.32410	.03630	.00020	.00350	.00894	.32630	-.00090	.02200	.65960	.01730
.201	-.010	.32300	.03630	.00090	-.00050	.00879	.32510	-.00030	.00300	.65910	.01716
.201	2.000	.32030	.03790	.00060	-.00650	.00870	.32240	.00000	-.01400	.65900	.01762
.201	3.990	.32180	.03660	.00050	-.01260	.00724	.32360	.00050	-.03470	.65940	.01954
.201	8.030	.32070	.03280	-.00150	.02470	.00337	.32230	.00130	-.07500	.66160	.02402
.201	12.040	.31680	.02790	-.00360	.03680	-.00155	.32000	.00230	-.12000	.66400	.02856
GRADIENT	-.00070	-.00016	-.00016	.00015	-.00300	-.00009	-.00071	.00120	-.00928	-.00017	.00011

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL T01

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NR.701,0403 ORB 816C507F1J487X10

(RDNE03) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

RUN NO. 203/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 10.000 S.FLAP = -18.000  
 ELEVON = .000 AILRON = .000  
 NAC/L = .490 LIP = 4.000

MAON	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.57290	.07320	-.00310	.57870	-.03140	.03660	.00490	.13700	.66320	.02769
.201	-8.030	.57240	.07770	-.00190	.57710	-.02691	.02370	.00440	.08500	.66110	.02326
.201	-4.020	.57290	.08110	-.00070	.57780	-.02354	.01150	.00200	.04100	.66040	.02009
.201	-2.020	.57120	.08130	.00030	.57650	-.02314	.00370	.00060	.02200	.65960	.01943
.201	.000	.56910	.08160	.00170	.57450	-.02243	-.00040	-.00100	.00300	.65890	.01844
.201	2.000	.56670	.08090	.00140	.57210	-.02263	-.00650	-.00300	-.01400	.65900	.01699
.201	4.000	.56750	.07970	.00130	.57250	-.02396	-.01200	-.00460	-.03400	.65910	.02049
.201	6.030	.56340	.07670	-.00060	.56910	-.02610	-.02350	-.00680	-.07900	.66030	.02311
.201	12.080	.55850	.07100	-.00210	.56210	-.03085	-.03570	-.00790	-.13300	.66130	.02635
GRADIENT	-.00072	-.00016	-.00016	.00024	-.00075	-.00002	-.00295	-.00234	-.00927	-.00016	.00002

NR.701,0403 ORB 816C507F1J487X10

(RDNE04) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

RUN NO. 204/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 15.000 S.FLAP = -18.000  
 ELEVON = .000 AILRON = .000  
 NAC/L = .490 LIP = 4.000

MAON	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.83470	.16930	-.01440	.84930	-.06123	.04260	.01250	.13200	.66800	.02682
.201	-8.020	.83890	.17100	-.00810	.85400	-.06080	.02820	.00970	.08200	.66340	.02337
.201	-4.020	.84070	.17640	-.00670	.85710	-.05613	.01770	.00410	.03300	.66280	.02344
.201	-2.020	.83860	.17710	-.00340	.85580	-.05495	.01240	.00300	.01000	.66220	.02407
.201	.000	.83620	.17690	-.00470	.85300	-.05491	.00720	.00130	-.01100	.66190	.02466
.201	.83290	.83290	.17770	-.00420	.85000	-.05264	.00160	.00000	-.03400	.66170	.02424
.201	4.000	.82850	.17730	-.00390	.84560	-.05191	-.00430	-.00110	-.05400	.66250	.02514
.201	8.040	.82120	.17550	-.00760	.83820	-.05145	-.02030	-.00420	-.09100	.66320	.02567
.201	12.050	.82440	.16500	-.01060	.83640	-.06234	-.04130	-.01440	-.12500	.66460	.02797
GRADIENT	-.00131	-.00012	.00012	.00014	-.00143	.00034	-.00272	-.00067	-.01067	-.00003	.00018

NR.701.0405 ORB B16C507F1J4W7X10

(RDNR05) ( 23 JUN 73 )

## REFERENCE DATA

SRZF = 4.4119 36.FT. XRRP = 43.9974 INCHES  
 LRRF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRZF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 205/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 16.000 B.FLAP = -16.000  
 ELEVON = .000 AIRLON = .000  
 NACK/L = .490 LIP = 4.000

YACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.95940	.27940	-.02310	.99830	-.04281	.04200	.00120	.15000	.66630	.03165
.201	-6.030	.95230	.27910	-.01420	.99170	-.04093	.02440	.00900	.09900	.66510	.02872
.201	-4.030	.94360	.27600	-.00640	.98230	-.04090	.01320	.00320	.04300	.66230	.02827
.201	-2.030	.94110	.27400	-.00210	.97930	-.04192	.00830	.00320	.02000	.66070	.02919
.201	-.010	.93600	.27270	-.00040	.97400	-.04149	.00340	.00190	-.00500	.66010	.02949
.201	1.990	.93360	.27060	.00070	.97120	-.04249	-.00210	.00020	-.02900	.65970	.02867
.201	4.000	.94250	.26740	-.00310	.97860	-.04862	-.00660	.00340	-.05800	.66110	.02932
.201	6.040	.93070	.26740	-.00370	.96730	-.04466	-.02070	-.00350	-.10200	.66210	.03100
.201	12.060	.92980	.26180	-.00130	.96470	-.04964	-.03910	-.00840	-.14700	.66420	.03332
GRADIENT	-.00048	-.00048	-.00102	.00047	-.00077	-.00080	-.00249	-.00033	-.01231	-.00017	.00006

NR.701.0405 ORB B16C507F1J4G12W7V5X10

(RDNR06) ( 23 JUN 73 )

## REFERENCE DATA

SRZF = 4.4119 36.FT. XRRP = 43.9974 INCHES  
 LRRF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRZF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 REFLEARE = .000  
 ELEVON = .000 AIRLON = .000  
 NACK/L = .490 LIP = 4.000

RUN NO. 206/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

YACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-.05420	.05660	-.00410	-.10210	.05172	.00030	-.00120	-.00200	.64940	.01530
.201	-2.000	-.00560	.05470	-.00400	-.00750	.05448	.00050	-.00120	-.00300	.64750	.01633
.201	-.970	.04160	.05480	-.00460	.04090	.05557	.00050	-.00120	-.00200	.70030	.01536
.201	.060	.06970	.05400	-.00460	.06970	.05398	.00030	-.00130	-.00100	.67850	.01673
.201	1.060	.13530	.05530	-.00510	.13650	.05301	.00040	-.00130	.00000	.67350	.01565
.201	2.100	.18260	.05660	-.00530	.18470	.04990	.00030	-.00140	.00000	.67030	.01623
.201	4.160	.27430	.06230	-.00540	.27630	.04230	.00030	-.00150	.00000	.66700	.01546
.201	6.230	.36640	.07070	-.00670	.37390	.03020	.00040	-.00190	.00000	.66650	.01609
.201	8.320	.46180	.08440	-.00620	.46920	.01667	.00040	-.00200	.00100	.65470	.01565
.201	10.370	.55910	.10400	-.00560	.56870	.00163	.00030	-.00270	.00100	.66360	.01747
.201	12.460	.66060	.13180	-.00540	.67380	-.01383	.00070	-.00160	.00000	.66290	.01791
.201	14.540	.76760	.16370	-.00630	.78460	-.03247	.00170	-.00260	.00000	.66300	.02035
.201	16.610	.86800	.21960	-.00690	.89270	-.03701	.00740	-.00260	-.01400	.66340	.02197
.201	18.630	.92590	.28400	-.00420	.96910	-.02713	.00520	.00340	-.01300	.66150	.02437
.201	20.710	.94590	.33680	.00790	1.02330	-.02468	.00370	.00090	-.00500	.65720	.02452
.201	22.740	.99920	.39060	.02060	1.07260	-.02369	.00260	-.00260	-.00100	.65300	.02972
.201	24.780	.93290	.41770	.04030	1.04020	-.01995	.00500	-.00300	.00100	.65910	.03663
GRADIENT	.04535	.00049	.00049	-.00019	.04628	-.00114	-.00001	-.00004	.00037	.01074	.00002



DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-WALL F01

PAGE 141

NR. F01.0405 CDB B16C507F1J4G12M87E10V3X10

ORIGENOT ( 27 JUN 73 )

REFERENCE DATA

SREF = 4.4119 58.FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 5.000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

PARAMETRIC DATA

RUN NO. 207/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-4.010	.00390	.03670	-.05070	-.00010	.05684	.00030	-.00140	-.00100	-3.27870	.01738
.201	-1.930	.09790	.03760	-.05100	.09590	.06096	.00040	-.00140	-.00200	.85080	.01747
.201	-.910	.14480	.05880	-.05190	.14380	.06116	.00030	-.00170	.00000	.78980	.01780
.201	.060	.16830	.06720	-.05260	.18830	.05992	.00020	-.00190	.00000	.76020	.01818
.201	1.130	.23610	.06310	-.05240	.23730	.05246	.00030	-.00210	.00100	.73920	.01754
.201	2.170	.28190	.06370	-.05260	.28420	.05498	.00000	-.00240	.00100	.72840	.01823
.201	4.210	.37230	.07400	-.05270	.37670	.04644	.00030	-.00270	.00200	.70110	.01731
.201	6.290	.46450	.08620	-.05400	.47120	.03478	.00000	-.00300	.00400	.69390	.01823
.201	8.390	.55830	.10280	-.05360	.56750	.02058	.00000	-.00290	.00200	.68890	.01855
.201	10.440	.66240	.12790	-.05440	.67460	.00576	.00000	-.00360	.00200	.68600	.02000
.201	12.510	.76930	.16000	-.05710	.78570	-.01044	.00070	-.00390	.00000	.68320	.02242
.201	14.600	.87200	.19780	-.05780	.89430	-.03136	.00120	-.00400	-.01400	.68120	.02523
.201	16.690	.96230	.25510	-.05820	.99500	-.07997	.00320	-.00450	-.00300	.67690	.02748
.201	18.690	.99810	.32720	-.04960	1.05030	-.07997	.00340	-.00400	-.00300	.66990	.02855
.201	20.790	1.02850	.37570	-.03070	1.09490	-.01311	.00290	-.00360	.00100	.66390	.03310
.201	22.780	1.04620	.42320	-.01290	1.12840	-.01489	.00290	-.00490	.00800	.64930	.04215
.201	24.780	1.00430	.44860	-.03270	1.09990	-.01364	.00360	-.00490	.00044	.56374	.00004
.201	GRADIENT	.04483	.00189	-.05827	.74536	-.00149	-.00003	-.00018			

NR. F01.0405 CDB B16C507F1G14B7V5C9-CP

(RDN208) ( 24 JUN 73 )

REFERENCE DATA

SREF = 4.4119 58.FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = .000

PARAMETRIC DATA

RUN NO. 208/ 0 RNVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	QL	QDF	CLM	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.180	14.880	1.09930	.29920	-.05970	1.06980	-.03576	.00030	-.00100	.00000	.66010	.01641
.180	17.000	1.18030	.32100	-.06320	1.20340	-.03234	.00210	-.00230	-.00400	.66540	.01675
.180	19.100	1.27480	.40800	-.09910	1.33790	-.03359	.00140	-.00220	.00200	.66850	.01808
.180	21.200	1.36280	.49570	-.11140	1.46830	-.03815	.00110	-.00330	-.00200	.66720	.01947
.180	23.270	1.44840	.57930	-.11710	1.57900	-.04788	.00130	-.00340	-.00300	.66660	.02081
.180	25.330	1.49370	.65390	-.10820	1.63190	-.04926	.00330	-.00670	-.00100	.66310	.03198
.180	GRADIENT	.04356	.04016	-.00460	.03909	-.00182	.00017	-.00064	-.00008	.00027	.00124

NR.701.0405 ORB 816C507F161487E18V3X9-GP

REFERENCE DATA

SR07 = 4.4119 36.17. 30RP = 43.9974 INCHES  
 LRD = 19.2999 INCHES 1TRP = .0000 INCHES  
 BR07 = 37.9349 INCHES 2TRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 209/ 0 ENL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.160	14.960	1.15080	.27080	-.11620	1.18140	-.03569	-.00020	-.00080	.00500	.69590	.01567
.160	17.090	1.26640	.35810	-.13750	1.31570	-.02903	.00240	.00310	.00200	.69750	.01661
.160	19.130	1.34400	.44310	-.14580	1.43390	-.02890	.00190	-.00300	.00600	.67650	.01869
.160	21.290	1.46650	.53140	-.15630	1.55920	-.03628	.00350	.00010	.00400	.69590	.01958
.160	23.320	1.54420	.62200	-.15640	1.66430	-.04039	.00140	-.00100	.00300	.69370	.02412
.160	25.270	1.46250	.68070	-.12140	1.60440	-.02700	.00900	-.02050	.03670	.68710	.05346
GRADIENT	.03459	.03909	.03909	-.00120	.04551	.00001	.00058	-.00148	.00212	-.00077	.00290

PARAMETRIC DATA

BETA = .500 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 5.000 AILRON = .000

NR.701.0405 ORB 816C507F161487E18V3X9-GP

REFERENCE DATA

SR07 = 4.4119 36.17. 30RP = 43.9974 INCHES  
 LRD = 19.2999 INCHES 1TRP = .0000 INCHES  
 BR07 = 37.9349 INCHES 2TRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 210/ 0 ENL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.160	15.010	1.21880	.30000	-.15770	1.25300	-.02576	.00070	.00090	.00300	.70500	.01467
.160	17.090	1.31450	.36200	-.16780	1.36870	-.02113	.00170	.00270	.00200	.70390	.01462
.160	19.180	1.42650	.47200	-.17960	1.50240	-.02286	.00060	.00170	.00100	.70290	.01821
.160	21.290	1.51590	.56440	-.18450	1.61740	-.02459	.00000	.00280	.00100	.70090	.02076
.160	23.350	1.37440	.65210	-.17770	1.70390	-.02536	.00170	-.00130	.00300	.69740	.02471
.160	25.280	1.42290	.67430	-.12960	1.57750	-.00118	.00610	-.00800	.01000	.68940	.05906
GRADIENT	.02671	.03651	.03651	.00139	.03818	.00163	.00036	-.00076	.00052	-.00137	.00349

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 10.000 AILRON = .000

DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-MAL 701

NR. 701.0405 ORB B16C507F161W67E18V518H4CP

(R0N211) ( 24 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. 1000P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 CP-POS = 240.000  
 ELEVON = 15.000 AIRLON = .000

PARAMETRIC DATA

RUN NO. 211/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	1.27440	.32790	-.19000	1.31590	-.01453	.00090	.00140	.00200	.71180	.01478
.100	15.060	.41900	-.20190	1.44530	-.01189	.00090	.00260	.00400	.71010	.01499
.100	17.190	.51090	-.21130	1.56940	-.00718	.00000	.00540	.00000	.70630	.01839
.100	19.240	.59980	-.20890	1.66590	-.00782	-.00190	.00720	.00000	.70490	.02333
.100	21.320	.67020	-.19470	1.70690	-.00787	.00110	.00020	.00400	.70080	.02708
.100	23.350	.70740	-.15470	1.81900	-.01992	.00280	-.00190	-.00200	.69430	.07146
.100	25.280	.03845	.00273	.03354	.00253	.00010	-.00027	-.00026	-.00165	.00448
GRADIENT	.02152									

(R0N212) ( 24 JUN 75 )

NR. 701.0405 ORB B16C507F161W67E18V518H4CP

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 CP-POS = 240.000  
 ELEVON = -10.000 AIRLON = .000

REFERENCE DATA

SREF = 4.4119 SQ.FT. 1000P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 212/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.090	.18390	.07180	.80440	-.02077	.00110	.00190	-.00100	.62790	.01692
.100	16.800	.25890	.04040	.97230	-.02385	.00190	.00310	-.00200	.64900	.01784
.100	18.910	.32800	.01990	1.09610	-.03066	.00160	.00040	.00100	.65340	.01833
.100	21.080	.41230	.00140	1.24820	-.03729	.00140	-.00260	.00000	.65990	.02090
.100	23.120	.49280	-.01290	1.35580	-.04312	.00240	-.00340	.00000	.66340	.02239
.100	25.220	.56620	-.01840	1.48170	-.04990	.00340	-.00600	.00000	.66440	.02741
GRADIENT	.05428	.03600	-.00834	.06358	-.00285	.00017	-.00084	.00102	.00331	.00093

DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-HAAL 701

NR.701.0405 CDB B18C9D7F1614B7E18V3X3+GP

(R08E13) ( 24 JUN 75 )

REFERENCE DATA

SRZ = 4.4119 26.17. 1989 = 43.5974 INCHES  
 UNZ = 19.8999 INCHES YMRP = .0000 INCHES  
 SRZ = 37.9348 INCHES ZMRP = 18.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = -20.000 AIRON = .000

RUN NO. 213/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

HAOH	ALPHA	CL	CF	CLM	CM	CAF	CLN	CSL	CY	KCP/L	CAB
.160	14.340	.37630	.15730	.17620	.59930	.00898	.00130	-.00130	-.00800	.55440	.02461
.160	16.630	.68970	.21480	.16180	.72230	.00814	.00230	.00000	-.00300	.57960	.02371
.160	18.770	.82020	.27830	.14190	.86610	-.00046	.00190	-.00070	.00000	.60110	.02224
.160	20.860	.94810	.35080	.11340	1.01090	-.01019	.00230	-.00270	.00200	.61900	.02253
.160	22.960	1.05790	.42710	.08210	1.14040	-.01936	.00210	-.00330	.00400	.63090	.02431
.160	25.060	1.15790	.51210	.07910	1.26540	-.02632	.00260	-.00430	.00400	.63797	.02650
GRADIENT	.05602	.03370	-.00978	.06419	-.00332	.00009	-.00039	-.00039	.00080	.00777	.00029

REFERENCE DATA

SRZ = 4.4119 26.17. 1989 = 43.5974 INCHES  
 UNZ = 19.8999 INCHES YMRP = .0000 INCHES  
 SRZ = 37.9348 INCHES ZMRP = 18.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = -30.000 AIRON = .000

RUN NO. 214/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

HAOH	ALPHA	CL	CF	CLM	CM	CAF	CLN	CSL	CY	KCP/L	CAB
.160	14.310	.33140	.17910	.18460	.55940	.04013	-.00080	.00390	.00800	.54020	.03361
.160	16.560	.61030	.22400	.19600	.64690	.04048	-.00120	.00710	.00000	.55150	.03272
.160	18.690	.68800	.27020	.19050	.75900	.03587	-.00110	.00430	.00100	.56350	.03137
.160	20.740	.78470	.32920	.13060	.85040	.03012	.00040	.00090	.00300	.57940	.03161
.160	22.830	.88190	.39540	.17890	.96830	.02196	.00120	-.00210	.00300	.59370	.03305
.160	24.940	.98290	.47290	.16140	1.09040	.01379	.00210	-.00370	.00400	.60680	.03525
GRADIENT	.04336	.02702	-.00256	.05092	-.00264	.00032	-.00032	-.00095	.00037	.00651	.00012

(R08E14) ( 24 JUN 75 )

NR.701.0405 CDB B18C9D7F1614B7E18V3X3+GP

PARAMETRIC DATA

PARAMETRIC DATA

DATE 27 SEP 75

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NR.T01.0405 ORB 816C307F1G1W87E18V5K9+CP

(R0N218) ( 24 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36.FT. 1000P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 CP-POS = 240.000  
 ELEVON = -40.000 ATTORN = .000

RUN NO. 215/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CL	CLF	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.490	.50150	.20990	.19280	.53710	.07382	-.00080	.00020	.00100	.53130	.04308
.100	16.580	.59780	.25340	.19380	.64530	.07226	-.00080	.00010	.00300	.55230	.04318
.100	18.670	.68470	.30440	.19590	.74800	.06858	-.00020	.00030	.00900	.56800	.04498
.100	20.750	.77830	.36420	.19790	.85680	.06471	.00030	-.00150	.00600	.58000	.04543
.100	22.850	.86270	.42770	.17920	.96110	.05912	.00020	-.00290	.00800	.59310	.04430
.100	24.920	.93690	.49840	.16980	1.06190	.05626	.00100	-.00210	.00700	.60280	.04580
GRADIENT	.04208	.02800	.02800	-.00224	.05936	-.00179	.00020	-.00035	.00020	.00675	.00024

NR.T01.0405 ORB 816C307F1G1W87E18V5K9+CP

(R0N218) ( 24 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36.FT. 1000P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 1000P = .0000 INCHES  
 BREF = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 CP-POS = 240.000  
 ELEVON = .000 ATTORN = .000

RUN NO. 216/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CL	CLF	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.670	1.02800	.24000	-.05490	1.03350	-.03140	-.00210	.02190	-.00200	.67870	.01581
.100	16.980	1.15810	.32170	-.07880	1.20180	-.03082	-.00180	.02280	-.00400	.68340	.01659
.100	19.280	1.28240	.40390	-.09100	1.32510	-.03095	-.00310	.01550	.00100	.68460	.01902
.100	21.170	1.36550	.48860	-.10280	1.44980	-.03765	-.00410	.01380	.00400	.68540	.02055
.100	23.280	1.46000	.57980	-.10940	1.57050	-.04408	-.00400	.01180	.00400	.68500	.02339
.100	25.300	1.46840	.64980	-.09300	1.60580	-.04014	.00230	-.00690	.00900	.68070	.03512
GRADIENT	.04412	.03579	.03579	-.00405	.05464	-.00124	.00019	-.00244	.00248	.00022	.00182

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TABULATED SOURCE FORCE DATA-NAL 701

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NR.701.0405 ORB B16C307F1C1UBTE18V3X3+CP

(R0N217) ( 24 JUN 73 )

## REFERENCE DATA

3007 = 4.4119 36.17. 200P = 43.3974 INCHES  
 1007 = 19.2999 INCHES 100P = .0000 INCHES  
 8007 = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = 15.000

## PARAMETRIC DATA

RUN NO. 217/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CLF	CLN	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.100	14.830	.98360	.24880	-.03330	1.01400	-.01350	-.00800	.06230	-.03300	.57170	.01732
.100	16.990	1.11810	.32820	-.05490	1.16480	-.01408	-.01050	.05480	-.04900	.67690	.01504
.100	19.060	1.22730	.40700	-.07370	1.29310	-.01617	-.01320	.05190	-.04500	.68040	.01929
.100	21.180	1.33080	.49300	-.08360	1.41900	-.02077	-.01610	.04560	-.03600	.68110	.02126
.100	23.240	1.40730	.57640	-.08610	1.52080	-.02569	-.01560	.03780	-.03200	.68030	.02448
.100	25.220	1.47610	.63290	-.08290	1.51490	-.01427	-.00080	-.00030	.03300	.67490	.03488
GRADIENT	.04041	.03798	.03798	-.00349	.05088	-.00080	.00022	-.00522	.00665	.00038	.00285

## REFERENCE DATA

3007 = 4.4119 36.17. 200P = 43.3974 INCHES  
 1007 = 19.2999 INCHES 100P = .0000 INCHES  
 8007 = 37.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = .000

## PARAMETRIC DATA

NR.701.0405 ORB B16C307F1C1UBTV3X3+CP

(R0N218) ( 24 JUN 73 )

RUN NO. 218/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CLF	CLN	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.100	14.870	1.02930	.23700	-.06180	1.03370	-.03517	.00270	.00090	-.00400	.68090	.01653
.100	16.970	1.16140	.31800	-.08770	1.20370	-.03483	.00350	.00230	-.00900	.68610	.01744
.100	19.070	1.26910	.40180	-.10070	1.33670	-.03523	.00180	-.00300	-.00300	.68710	.01996
.100	21.240	1.37710	.49510	-.11320	1.46295	-.03737	.00090	-.00180	-.00300	.68770	.02132
.100	23.280	1.46860	.56480	-.11930	1.57630	-.04273	.00190	-.00130	-.00900	.68710	.02373
.100	25.310	1.50310	.63980	-.11180	1.64080	-.04651	.00330	-.00370	-.00300	.68440	.03306
GRADIENT	.04638	.04103	.04103	-.00499	.03714	-.00113	.00010	-.00068	.00004	.00029	.00140

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0435 ORB B16C507F13487V5X10+GP

(RDZ219) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .070 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = .000

## PARAMETRIC DATA

RUN NO. 219/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-1.020	-.06650	.03190	.11390	-.06910	.03068	.01060	-.00040	-.08500	1.25120	.02213
.160	.030	.03760	.03200	.11780	.00690	.03207	.01090	-.00050	-.08600	1.09020	.02448
.160	1.100	.09710	.03370	.10600	.09780	.03182	.01000	.00000	-.08300	.27070	.02261
.160	2.190	.17070	.03590	.09660	.17200	.02954	.01060	-.00020	-.08500	.45820	.02159
.160	4.290	.33990	.04470	.06490	.34230	.01913	.01070	.00000	-.08500	.59190	.02059
.160	6.400	.48340	.05980	.03250	.48900	.00535	.00990	.00080	-.08200	.63810	.01875
.160	8.530	.63480	.08450	.00180	.64030	-.01037	.00950	.00120	-.08000	.65890	.01749
.160	10.640	.77130	.11700	-.01560	.78020	-.02751	.00880	.00150	-.07800	.66710	.01701
.160	12.750	.91040	.15990	-.04180	.92330	-.04500	.00930	.00040	-.07800	.67620	.01605
.160	14.880	1.06340	.22490	-.06630	1.09550	-.05588	.00980	.00300	-.08000	.68190	.01605
.160	16.980	1.19230	.31480	-.09430	1.23220	-.04729	.01310	.00700	-.08800	.68740	.01688
.160	19.060	1.28040	.39400	-.10930	1.33880	-.04584	.00990	.00790	-.07500	.68930	.01936
.160	21.180	1.39360	.49280	-.12120	1.47750	-.04409	.00850	.00340	-.07000	.68940	.02136
.160	23.270	1.49250	.58830	-.12910	1.60350	-.04932	.01050	.00150	-.07000	.68890	.02255
.160	25.390	1.54810	.67190	-.12340	1.68670	-.05574	.01390	-.00320	-.07000	.68820	.03039
GRADIENT	.07707	.00246	.00982	.07763	-.00224	-.00000	.00718	.00000	.00000	-.13289	-.00049

NR.701.0405 ORB B16C507F13487V5X10+GP

(RDZ220) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 220/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	10.650	.78240	.11700	-.00330	.77130	-.02359	.00060	-.00060	-.00100	.68150	.01747
.160	12.780	.88700	.11700	-.02070	.89980	-.04271	.00100	-.00060	.00000	.68820	.01645
.160	14.680	1.01740	.20680	-.03610	1.03640	-.06113	.00340	-.00070	-.00300	.67310	.01833
.160	16.950	1.14650	.29030	-.06230	1.18140	-.05653	.00690	.00400	-.01300	.67890	.01932
.160	19.080	1.28240	.39280	-.08390	1.32140	-.04101	.00230	.00270	-.00300	.68280	.02223
.160	21.180	1.34530	.48710	-.09460	1.42750	-.03356	.00070	-.00070	-.00100	.68370	.02513
.160	23.220	1.40500	.55700	-.09340	1.51080	-.04206	-.00020	.00020	-.00100	.68220	.03009
.160	25.300	1.43410	.62760	-.09110	1.56480	-.04567	-.00210	.00500	-.00800	.68090	.03860
GRADIENT	.04771	.03691	.00665	.05644	-.00030	-.00021	.00024	.00022	.00000	.00138	.00139

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NR.701.0405 ORB 816C507F1J3612M87N5X10+GP

(RDN221) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 221/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	14.840	.94900	.21920	-.02860	1.01210	-.04144	.00320	.00030	-.01600	.67010	.01337
.160	16.960	1.11060	.29700	-.04870	1.14900	-.03999	.00730	.00350	-.02100	.67520	.01947
.160	19.050	1.22440	.39330	-.07310	1.28630	-.02600	.00310	.00390	-.01100	.68040	.02146
.160	21.140	1.29720	.48020	-.08900	1.36310	-.02014	-.00030	.00010	-.00600	.68200	.02434
.160	23.210	1.36200	.55220	-.08380	1.46940	-.02928	.00000	-.00010	-.00800	.68040	.02695
.160	25.230	1.36720	.62320	-.08330	1.52050	-.02772	.00390	.00300	-.00900	.67960	.04097
GRADIENT	.03877	.03945	.03945	-.00339	.04951	.00147	-.00097	-.00011	.00109	.00069	.00216

NR.701.0405 ORB 816C507F1J3612M87N5X10+GP

(RDN222) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 5.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 222/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	14.920	1.06470	.24550	-.08140	1.11130	-.04216	.00330	.00140	-.01500	.68620	.01523
.160	17.030	1.20550	.32860	-.09930	1.24890	-.03984	.00830	.00610	-.02200	.68650	.01864
.160	19.140	1.31300	.43610	-.12210	1.38340	-.01865	.00230	.00320	-.01000	.69160	.02104
.160	21.200	1.36120	.51910	-.12740	1.47540	-.01560	.00030	-.00140	-.00900	.69090	.02547
.160	23.220	1.42460	.58530	-.12230	1.54000	-.02389	.00100	.00010	-.01100	.68850	.03031
.160	25.270	1.43530	.65640	-.11710	1.57910	-.01729	.00310	.00640	-.01900	.68660	.04607
GRADIENT	.03433	.04033	.04033	-.00352	.04573	.00235	-.00091	.00003	.00026	.00002	.00267



NR.701.0405 ORB B16C507F1J3612487E18V5X10+GP

R0N0223) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 58.FT. XREF = 43.9974 INCHES  
 UREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 15.000 AIRLON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 223/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	15.010	1.2150	.29990	-.19090	1.29180	-.02963	.00490	.02280	-.01300	.70310	.01810
.100	17.100	1.33020	.40370	-.17140	1.39010	-.00551	.00630	.00657	-.01800	.70420	.02066
.100	19.190	1.42670	.50120	-.18180	1.49320	.01026	.00130	-.00010	-.00500	.70360	.02349
.100	21.290	1.46870	.57280	-.17570	1.56710	.00492	.00200	-.00160	-.00600	.70020	.02738
.100	23.290	1.48730	.64600	-.16620	1.62180	.00511	.00160	.00380	-.01800	.69670	.03578
.100	25.290	1.45310	.70790	-.15670	1.61610	.01882	-.00220	.00000	-.00300	.69480	.03845
GRADIENT		.02363	.03944	-.00015	.03504	.00346	-.00068	-.00032	.00060	-.00093	.00346

NR.701.0405 ORB B16C507F1J3612487E18V5X10+GP

R0N0224) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 58.FT. XREF = 43.9974 INCHES  
 UREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 15.000 AIRLON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 224/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	15.010	1.22300	.30100	-.15130	1.29920	-.02614	.00510	.02290	-.01800	.70310	.01843
.100	17.090	1.33130	.40310	-.17130	1.39100	-.00368	.00640	.02640	-.01700	.70410	.02072
.100	19.180	1.41570	.50070	-.18190	1.50180	.00771	.00170	-.00130	-.00700	.70340	.02384
.100	21.240	1.46630	.57530	-.17680	1.57700	.00424	.00210	-.00120	-.01000	.70020	.02730
.100	23.290	1.48080	.64470	-.16530	1.61910	.00772	.00000	.00580	-.00200	.69670	.03636
.100	25.280	1.45700	.70720	-.15660	1.61940	.01780	-.00230	.00180	-.00900	.69470	.03812
GRADIENT		.02336	.03944	-.00007	.03561	.00359	-.00078	-.00010	.00024	-.00094	.00349

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(R04225) ( 24 JUN 73 )

NR. T01.0405 ORB B16C507F1J3612407E18V5X10+GP

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 GP-POS = 240.000  
ELEVON = -20.000 AILRON = .000  
NACX/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 225/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.180	14.520	.53910	.14940	.19360	.53930	.00949	.00500	.00080	-.00900	.53430	.02904
.180	16.620	.66930	.22020	.17400	.70340	.01376	.00200	.00040	-.00300	.57120	.02456
.180	18.750	.77720	.27720	.15910	.82510	.01267	.00240	.00030	-.00600	.59070	.02559
.180	20.830	.89330	.34470	.12970	.93930	.00367	.00060	.00050	-.00800	.61140	.02753
.180	22.930	1.00400	.42120	.10320	1.06880	-.00327	-.00080	-.00060	-.00500	.62590	.02967
.180	25.000	1.08790	.49690	.08250	1.19800	-.00961	-.00600	.00000	.00000	.63520	.03616
GRADIENT		.03271	.03280	-.01102	.06095	-.00236	-.00075	-.00008	.00053	.00940	.00100

(R04226) ( 24 JUN 73 )

NR. T01.0405 ORB B16C507F1J3612407E18V5X10+GP

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 GP-POS = 240.000  
ELEVON = .000 AILRON = 10.000  
NACX/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 226/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.180	14.810	.95960	.22490	-.01490	.98420	-.02766	.00270	.04340	-.09000	.66540	.01635
.180	16.950	1.08280	.29840	-.03290	1.12260	-.03028	.00110	.04540	-.05000	.67050	.01612
.180	19.080	1.18410	.39220	-.05590	1.24750	-.01609	-.00780	.03680	-.03400	.67600	.02068
.180	21.150	1.26780	.47560	-.06690	1.35410	-.01398	-.00920	.02900	-.02700	.67770	.02329
.180	23.150	1.32960	.54770	-.07050	1.43790	-.01927	-.00940	.02490	-.02400	.67750	.02679
.180	25.220	1.36570	.61900	-.07460	1.49930	-.02213	-.01200	.01790	-.00600	.67780	.04745
GRADIENT		.03938	.03653	-.00582	.04993	.00087	-.00147	-.00270	.00419	.00117	.00280

NR.701.0405 ORB B16C507F1J3G12A87E18V5X10+GP

(RDNE227) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 58.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = .000 AILRON = 10.000  
 NACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 227/ 0 RVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	QL	QDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	10.370	.68170	.13330	.00320	.69480	.00395	.00170	.04580	-.04700	.65730	.01687
.160	12.660	.80500	.16790	-.00360	.82220	-.01293	.00110	.04540	-.05100	.66180	.01611
.160	14.780	.92480	.21200	-.01170	.94810	-.03084	.00130	.04420	-.05400	.66440	.01780
.160	16.860	1.04620	.28860	-.02840	1.08490	-.02771	.00160	.04640	-.05500	.66930	.01933
.160	18.980	1.14050	.37430	-.04070	1.20030	-.01659	-.00610	.03830	-.04100	.67210	.02285
.160	21.040	1.22110	.46160	-.04980	1.30540	-.00773	-.00860	.02870	-.02900	.67370	.02665
.160	23.110	1.28850	.53170	-.04950	1.39380	-.01673	-.01060	.02720	-.02900	.67270	.03189
.160	25.190	1.32210	.59790	-.04430	1.45090	-.02076	-.01390	.02200	-.01600	.67090	.04273
GRADIENT		.04507	.03372	-.00401	.03337	-.00072	-.00117	-.00178	.00237	.00104	.00152

NR.701.0405 ORB B16C507F1J3G12A87E18V5X10+GP

(RDNE228) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 58.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = -20.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 228/ 0 RVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	QL	QDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	10.230	.20060	.06190	.23600	.21200	.04302	.00140	.00000	-.00700	.26090	.02070
.160	12.340	.32880	.10130	.22680	.34290	.02872	.00180	-.00050	-.05803	.42230	.02095
.160	14.430	.45520	.12890	.21580	.47300	.01136	.00240	-.00010	-.00800	.49620	.02114
.160	16.530	.59320	.18630	.19380	.62170	.00982	.00190	-.00010	-.00500	.54810	.02133
.160	18.650	.72290	.25360	.16930	.76600	.00907	.00240	-.00060	-.00600	.58090	.02351
.160	20.750	.83190	.31200	.15170	.88850	-.00306	.00170	-.00010	-.00800	.59870	.02620
.160	22.860	.93530	.38360	.13340	1.01090	-.00987	.00000	-.00120	-.00300	.61260	.02951
.160	24.930	1.01240	.45700	.12260	1.11070	-.01235	-.00390	-.00040	-.00400	.62030	.03459
GRADIENT		.05649	.02635	-.00837	.06242	-.00362	-.00027	-.00004	.00020	.02157	.00089

NR.701.0405 ORB B16C507F1J361E16W7E16V5X10+CP

(R0K225) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50-FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = 15.000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 229/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.06

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	17.790	.98270	.19330	-.14490	1.00150	.00563	.00110	-.00000	.00100	.71190	.01686
.105	12.690	1.09240	.23780	-.14880	1.11790	-.01196	.70310	-.00040	-.00400	.70770	.01696
.110	14.960	1.20460	.29630	-.15450	1.24030	.02481	.00520	.00160	-.01100	.70470	.01937
.115	17.040	1.37280	.36430	-.16250	1.35800	-.01442	.00940	.00810	-.01970	.70290	.02309
.120	19.140	1.58640	.50080	-.17710	1.47390	.01840	.00090	-.00260	-.00800	.70310	.02721
.125	21.220	1.44690	.57420	-.16890	1.55660	.01132	.00050	-.00300	-.00700	.69890	.03111
.130	23.260	1.47170	.63390	-.15190	1.60180	.00125	-.0.070	.00150	-.0.100	.69400	.03603
.135	25.260	1.44920	.68920	-.12960	1.60470	.02473	-.0.230	.00330	-.01270	.68890	.03590
GRADIENT	.03437	.03680	.00018	.00018	.04435	.00115	-.0.37	.00778	-.00068	-.00142	.00236

NR.701.0405 ORB B16C507F1J361E16W7E16V5X10+CP

(R0K230) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50-FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = 15.000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 230/ 0 RV/L = 1.1 GRADIENT INTERVAL = -5.00/ 5.07

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	10.880	.80590	.14710	-.05650	.81920	-.00450	.00110	-.00110	.00000	.66470	.01710
.105	12.790	.92670	.18590	-.06450	.94490	-.02329	.00260	-.00120	-.00400	.66450	.01672
.110	14.860	1.04820	.23790	-.07480	1.07400	-.03981	.00610	-.00780	-.01200	.66430	.01734
.115	16.960	1.16990	.32170	-.08980	1.21290	-.03364	.00870	.00650	-.01970	.66650	.02105
.120	19.080	1.26600	.41820	-.10450	1.33310	-.01816	.00360	.00300	-.06800	.66800	.02411
.125	21.110	1.33750	.50490	-.10960	1.42960	-.01580	.00050	-.00160	-.00390	.66750	.02967
.130	23.170	1.39050	.57450	-.10280	1.50440	-.01904	-.00120	.00000	-.00770	.66440	.03436
.135	25.210	1.40200	.63490	-.08680	1.53900	-.02269	-.00310	.00350	-.01400	.66020	.04541
GRADIENT	.04272	.03560	.00018	-.00300	.03166	-.00003	-.00040	.00019	-.00059	-.00013	.00186

MR. TOLSON: 0405 ORD 816C507F1J5612487V9X10+CP

(1520231) ( 24 JUN 73 )

## REFERENCE DATA

SPED = 4.4119 SQ.FT. XBRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YBRP = .0000 INCHES  
DREF = 37.9349 INCHES ZBRP = 16.2000 INCHES  
SCALE = .0475 SCALE

### PARAMETRIC DATA

BETA =	.000	B.FLAP =	-10.000
RUDDER =	.000	CP-POS =	209.000
ELEVON =	.000	AILRON =	.000
NACVAL =	.000	LIP =	4.000

RUN NO. 231/0 BVAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CL	CF	CLN	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.160	666000	.12560	.00290	.69340	-.00267	.00060	.00000	.00000	.65690	.01714
.160	.61090	.16020	-.00710	.62630	-.02161	.00160	.00050	.00000	.66310	.01673
.160	14.790	.95370	-.01940	.96050	-.03936	.00460	.00040	-.00600	.01709	.01709
.160	19.870	.26720	-.03740	1.09980	-.03349	.00660	.00570	-.01200	.67220	.01932
.160	1.06210	.28720	-.03740	1.22490	-.02393	.00210	.00320	-.00200	.67540	.02336
.160	1.16610	.37590	-.03270	1.34770	-.01926	.00040	-.00120	.00600	.67750	.02626
.160	1.23230	.46200	-.06450	1.42120	-.02571	-.00140	-.00040	.00600	.67930	.03294
.160	1.31710	.53440	-.06240	1.47310	-.03069	-.00200	-.00070	.01000	.67260	.04279
.160	1.34620	.59680	-.03260	1.47310	-.00064	-.00029	-.00010	.00069	.00112	.00170
GRADIENT	.04671	.03442	-.00466	.05950						

## REFERENCE DATA

SHEET = 4.4119 SQ. FT. 10000' = 43.5974 INCHES  
 LINE = 19.2999 INCHES 10000' = .0000 INCHES  
 BRIDGE = 37.9349 INCHES 20000' = 15.2000 INCHES  
 SCALE = .0003 SCALE

## PARAMETRIC DATA

BETA	=	.000	B. FLAP	=	-10.000
RUDDER	=	.000	GP-POS	=	209.000
ELEVON	=	.000	AILRON	=	.000
NACX/L	=	.000	LIP	=	4.000

Run No	$\Delta T / \text{C}$	BV/V	=	1.17	GRADIENT INTERVAL =	-5.00/	5.00
1	10	0.00					
2	20	0.00					
3	30	0.00					
4	40	0.00					
5	50	0.00					
6	60	0.00					
7	70	0.00					
8	80	0.00					
9	90	0.00					
10	100	0.00					
11	110	0.00					
12	120	0.00					
13	130	0.00					
14	140	0.00					
15	150	0.00					
16	160	0.00					
17	170	0.00					
18	180	0.00					
19	190	0.00					
20	200	0.00					
21	210	0.00					
22	220	0.00					
23	230	0.00					
24	240	0.00					
25	250	0.00					
26	260	0.00					
27	270	0.00					
28	280	0.00					
29	290	0.00					
30	300	0.00					
31	310	0.00					
32	320	0.00					
33	330	0.00					
34	340	0.00					
35	350	0.00					
36	360	0.00					
37	370	0.00					
38	380	0.00					
39	390	0.00					
40	400	0.00					
41	410	0.00					
42	420	0.00					
43	430	0.00					
44	440	0.00					
45	450	0.00					
46	460	0.00					
47	470	0.00					
48	480	0.00					
49	490	0.00					
50	500	0.00					
51	510	0.00					
52	520	0.00					
53	530	0.00					
54	540	0.00					
55	550	0.00					
56	560	0.00					
57	570	0.00					
58	580	0.00					
59	590	0.00					
60	600	0.00					
61	610	0.00					
62	620	0.00					
63	630	0.00					
64	640	0.00					
65	650	0.00					
66	660	0.00					
67	670	0.00					
68	680	0.00					

[illegible]



NR.701.0405 ORB B16C5D7F1G12A07E18V5X9+GP

(RDN235) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2939 INCHES YREF = .0000 INCHES  
 ZREF = 37.9349 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = 5.000 AILRON = .000  
 NACX/L = .000 LTP = 4.000

RUN NO. 235/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	10.660	.01050	.13750	-.07180	.82190	-.01484	-.00060	.00010	.00900	.69130	.01668
.160	12.670	.04560	.18190	-.08720	.96260	-.03220	-.00030	-.00040	.00800	.69250	.01636
.160	14.690	.10880	.25060	-.10740	1.11770	-.03793	.00000	-.00040	.01000	.69450	.01717
.160	17.070	.12120	.34250	-.12930	1.25930	-.02683	.00280	.00120	.00100	.69680	.01949
.160	19.120	.13120	.42800	-.14010	1.38000	-.02552	.00180	-.00350	.01100	.69640	.02157
.160	21.220	.14160	.52140	-.15190	1.50860	-.02761	.00200	-.00580	.01200	.69610	.02296
.160	23.300	.15020	.61180	-.15180	1.62190	-.03250	.00410	-.00770	.01200	.69360	.02539
.160	25.250	.14270	.64910	-.09940	1.56770	-.02189	.00700	-.01080	.01400	.68270	.04399
GRADIENT		.04667	.03771	-.00380	.05594	-.00011	.00046	-.00076	.00040	-.00028	.00144

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2939 INCHES YREF = .0000 INCHES  
 ZREF = 37.9349 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = 15.000 AILRON = .000  
 NACX/L = .000 LTP = 4.000

NR.701.0405 ORB B16C5D7F1G12A07E18V5X9+GP

(RDN236) ( 19 DEC 73 )

RUN NO. 236/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	10.790	.09020	.18420	-.15910	1.00720	-.00459	-.00040	.00070	.00700	.71660	.01680
.160	12.910	.11690	.25530	-.17230	1.14130	-.01967	.00000	.00020	.00900	.71410	.01662
.160	15.020	.12560	.32040	-.19420	1.29610	-.01618	.00270	.00080	.00200	.71370	.01832
.160	17.110	.13670	.40670	-.21670	1.42700	-.01370	.00260	.00010	.00400	.71190	.01957
.160	19.190	.14500	.50340	-.21220	1.53560	-.00159	.00170	-.00520	.01100	.70950	.02246
.160	21.300	.15540	.60260	-.21640	1.66760	-.00345	.00140	-.00390	.00900	.70650	.02256
.160	23.370	.16130	.68800	-.20440	1.75380	-.00644	.00220	-.00230	.00600	.70120	.02822
.160	25.250	.14370	.66670	-.13320	1.59300	.00712	.00440	.00110	-.00800	.69000	.06072
GRADIENT		.03605	.03855	-.00037	.04831	.00107	.00023	-.00017	-.00052	-.00155	.00216

TABULATED SOURCE FORCE DATA NAAL 701 0A16

DATE 19 DEC 73

(R0N237) (19 DEC 73)

NR, 701, 0A05 ORB 016C507F1612A07E18V5X9+CP

PARAMETRIC DATA

BETA = .000 B. FLAP = -18.000  
RUDDER = .000 GP-POS = 209.000  
ELEVON = -20.000 AIRCON = .000  
NACX/L = .000 LIP = 4.000

REFERENCE DATA

SECF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2700 INCHES  
SCALE = .0405 SCALE

RUN NO. 237/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	10.260	.24350	.07170	.20140	.25230	.02719	.00000	-.00090	.00200	.00000	.02309
.100	12.350	.35740	.09180	.24270	.36870	.01322	-.00010	-.00220	.00130	.00480	.02157
.100	14.440	.47190	.12280	.30670	.48770	.00125	.00030	-.00050	.00110	.01370	.02041
.100	16.500	.59810	.17750	.38410	.62390	-.00036	-.00030	.00110	.00030	.05410	.02031
.100	18.670	.75520	.24520	.45710	.77570	-.00326	.00100	.00060	.00100	.04730	.02007
.100	20.770	.94510	.31120	.53530	.90670	-.01102	.00230	-.00220	.00050	.00640	.01380
.100	22.800	1.16110	.39630	.61530	1.05810	-.01642	.00300	-.00460	.00090	.02000	.02301
.100	24.900	1.40710	.47500	.69790	1.17150	-.02164	.00440	-.00380	.00200	.02690	.02867
GRADIENT	.05766	.02818	-.00735	.06369	.00300	-.00300	.00030	-.00021	.00014	.01622	.00005

NR, 701, 0A05 ORB 016C507F1612A07E18V5X9+CP

(R0N238) (19 DEC 73)

PARAMETRIC DATA

BETA = .000 B. FLAP = -18.000  
RUDDER = .000 GP-POS = 209.000  
ELEVON = .000 AIRCON = 10.000  
NACX/L = .000 LIP = 4.000

REFERENCE DATA

SECF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2700 INCHES  
SCALE = .0405 SCALE

RUN NO. 238/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	10.580	.68700	.12350	-.00170	.65870	-.00473	.00040	.00460	-.00000	.66370	.01855
.100	12.670	.81750	.16760	-.02150	.83280	-.02265	-.00060	.00410	-.02400	.66920	.01798
.100	14.810	.93770	.22360	-.04180	.98310	-.02849	-.00230	.00490	-.02400	.67520	.01703
.100	16.910	1.07660	.30240	-.06270	1.11800	-.02386	-.00350	.00420	-.02500	.67990	.01304
.100	19.000	1.19590	.36670	-.07360	1.25550	-.02406	-.00630	.00360	-.01400	.68190	.02014
.100	21.100	1.29920	.47310	-.08660	1.38310	-.02642	-.00880	.00290	-.01200	.68240	.02180
.100	23.220	1.41110	.57020	-.09570	1.52170	-.03233	-.00830	.00580	-.01000	.68250	.02455
.100	25.810	1.56290	.61320	-.09660	1.49480	-.02379	-.00220	.00130	.01090	.67360	.03653
GRADIENT	.05120	.03508	-.00492	.06881	.00190	-.00190	-.00045	-.00024	.00091	.00097	.00097



REFERENCE DATA

SREF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = -16.000  
RUDDER = .000 GP-POS = 159.000  
ELEVON = .000 AILRON = 10.000  
NACX/L = .000 LIP = 4.000

PARAMETRIC DATA

RUN NO. 239/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	.020	.03240	.05950	.03600	.03240	.05950	.00770	.04260	-.03300	.41310	.02677
.160	1.110	.11730	.05970	.03240	.11840	.05741	.00740	.04320	-.03300	.56130	.02697
.160	2.160	.17770	.05990	.02740	.17990	.05321	.00670	.04270	-.03700	.60530	.02564
.160	4.250	.28860	.06310	.02140	.29260	.04349	.00550	.04230	-.03900	.63480	.02444
.160	6.350	.40150	.07430	.01190	.40730	.02943	.00420	.04210	-.04100	.64940	.02426
.160	8.410	.51400	.09070	.00460	.52180	.01453	.00270	.04290	-.04300	.65680	.02332
.160	10.500	.63790	.11640	-.00460	.64840	-.00191	.00130	.04400	-.04800	.66250	.02343
.160	12.640	.76380	.15170	-.01410	.77830	-.01990	.00000	.04390	-.04800	.66630	.02418
.160	14.720	.88210	.20390	-.02990	.90500	-.02697	.00340	.04320	-.05000	.67180	.02394
.160	16.820	1.01470	.28250	-.04680	1.03500	-.02853	-.00210	.04320	-.05000	.67590	.02684
.160	18.940	1.12430	.35570	-.05630	1.17890	-.02853	-.00150	.04320	-.04000	.67710	.03021
.160	21.020	1.20440	.43180	-.06790	1.27920	-.02900	-.001790	.02820	-.02800	.67700	.03264
.160	23.110	1.31780	.52310	-.06740	1.41820	-.03427	-.001850	.02540	-.02500	.67700	.03606
.160	25.190	1.29660	.56640	-.03350	1.41440	-.03782	-.00250	.01140	-.00190	.66850	.03074
GRADIENT		.05599	.00136	-.00376	.03604	-.00392	-.00054	-.00312	-.00142	.04752	-.00062

NR. P01.0405 ORB B10C907F1G12W0TE18VSK9+CP

(R0K240) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. YMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0000 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 CP-POS = 159.000  
 ELEVON = -20.000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 240/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CDP	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-1.250	-1.30610	.00270	.22930	-1.30640	.00107	.00030	.00000	-.00200	.87290	.02375
.100	.000	-.32240	.07430	.22600	-.32140	.07806	.00030	-.00050	-.00100	.91230	.00422
.100	1.430	-.26040	.06010	.22280	-.25810	.07644	.00030	-.00100	-.00200	.96970	.02396
.100	3.960	-.13460	.05890	.20880	-.13020	.06869	.00030	-.00130	-.00300	1.23540	.02124
.100	6.010	-.01920	.05510	.20320	-.01030	.05650	.00010	.00040	-.00400	3.27670	.02180
.100	8.100	.00310	.05490	.20380	.00710	.04314	.00030	-.00210	-.00200	-.17930	.02154
.100	10.190	.10050	.06350	.20520	.19010	.02892	.00000	-.00230	-.00100	.23810	.02260
.100	12.290	.30750	.08150	.20210	.31790	.01420	.00060	-.00280	-.00100	.43180	.02298
.100	14.390	.42760	.10990	.19510	.44150	.00015	.00000	-.00140	-.00200	.50140	.02337
.100	16.470	.54140	.15660	.18130	.56360	-.00330	.00000	.00000	-.00100	.54450	.02401
.100	18.600	.67520	.22270	.16300	.71100	-.00424	.00130	.00000	-.00400	.57770	.02364
.100	20.700	.73340	.28160	.15270	.83800	-.01574	.00200	-.00260	.00000	.59450	.02526
.100	22.790	.83910	.35230	.13800	.96540	-.02340	.00290	-.00540	.00300	.60840	.02897
.100	24.880	.98830	.42740	.12900	1.07640	-.02819	.00310	-.00640	.00000	.61690	.03361
GRADIENT		.05970	-.00553	-.00492	.06031	-.02012	.00000	-.00030	-.00033	.08816	-.00065

DATE 19 DEC 73

TABULATED SOURCE FORCE DATA NAAL T01 C418

PAGE 159

NR. T01.0405 ORB B16C50FF1612W07E1NVSX9+GP

(R0N241) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INC-ES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2300 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 SP-POS = 159.000  
 ELEVON = 15.000 AIRLON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 241/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	.200	.39530	.07220	-.12360	.39570	.07026	.00070	-.00020	.00300	.77210	.02732
.100	1.300	.44780	.07660	-.12400	.44940	.06644	.00070	-.00040	.00300	.75960	.02707
.100	2.300	.49170	.08170	-.12350	.49460	.06155	.00060	-.00040	.00300	.74960	.02594
.100	4.400	.54250	.09480	-.12460	.54810	.04985	.00050	.00050	.00300	.73630	.02490
.100	6.310	.69390	.11360	-.13250	.70230	.03413	.00040	-.00010	.00300	.72770	.02379
.100	6.620	.83670	.14530	-.15020	.84830	.01855	.00020	-.00050	.00300	.72350	.02381
.100	10.710	.93860	.17990	-.15280	.95570	.00219	.00000	-.00010	.00300	.71730	.02279
.100	12.400	1.06070	.22670	-.16100	1.08460	-.01395	.00010	-.00120	.00300	.71320	.02358
.100	14.930	1.19050	.29620	-.17530	1.22660	-.02045	.00030	-.00060	.00700	.71130	.02595
.100	17.010	1.29870	.39050	-.19140	1.35540	-.03636	.00330	-.00090	.00300	.71060	.03365
.100	19.090	1.37620	.47150	-.19260	1.45470	-.03461	.00220	-.00640	.01000	.70750	.03681
.100	21.190	1.47530	.56470	-.19460	1.57970	-.03585	.00120	-.00790	.01400	.70510	.03912
.100	23.270	1.55680	.65430	-.19040	1.69050	-.01473	.00390	-.01270	.01600	.70040	.04531
.100	25.190	1.42920	.65300	-.11130	1.57120	-.01757	.00600	-.00700	.01400	.68540	.07527
.100		.04499	.00553	-.00015	.04625	-.00501	-.00005	.00019	.00000	-.00859	-.00062

GRADIENT

NO. PSI.0403 ORB B16C507F1G1R07E18V5K9+CP

(R04242) (19 11 11)

## REFERENCE DATA

SECT 1 4.4119 53.87. YMRP = 43.5974 INCHES  
 LREF 1 19.2200 INCHES YMRP = .0000 INCHES  
 BREF 1 17.2749 INCHES ZMRP = 16.2000 INCHES  
 SCALE = 1.415 SCALE

## PARAMETRIC DATA

BETA = .0000 8. FLAP = -18.0000  
 RUDDER = .0000 GP-POS = 159.0000  
 ELEVON = 5.0000 AIRLON = .0000  
 NACX/L = .0000 LIP = 4.0000

RUN NO. 242/ D RM/L = 1.17 GRADIENT INTERVAL = -9.001/ 5.00

PSI	ALPHA	CL	CDP	CLM	CM	CAF	CLN	CSL	CV	ACTAL	CAB
.100	1.150	1.1920	.05560	-.01910	1.030	.05526	.00000	-.00140	.00000	.60000	.02614
.100	1.150	1.1920	.05560	-.02390	.23500	.05104	.00000	-.00210	.00000	.50000	.00000
.100	1.150	1.1920	.05560	-.02800	.30000	.04618	.00000	-.00340	.00000	.3500	.00000
.100	1.150	1.1920	.05560	-.03200	.41400	.03495	.00000	-.00410	.00000	.2500	.00000
.100	1.150	1.1920	.05560	-.03600	.52600	.02146	.00000	-.00510	.00000	.10000	.00000
.100	1.150	1.1920	.05560	-.03900	.64400	.00537	.00000	-.00600	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.04200	.76200	-.01072	.00000	-.00690	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.04500	.88000	-.02766	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.04800	1.00000	-.04635	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.05100	1.12000	-.06796	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.05400	1.24000	-.09226	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.05700	1.36000	-.11925	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.06000	1.48000	-.14931	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.06300	1.60000	-.18200	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.06600	1.72000	-.21766	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.06900	1.84000	-.25635	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.07200	1.96000	-.29800	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.07500	2.08000	-.34266	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.07800	2.20000	-.39000	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.08100	2.32000	-.44000	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.08400	2.44000	-.49266	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.08700	2.56000	-.54800	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.09000	2.68000	-.60635	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.09300	2.80000	-.66766	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.09600	2.92000	-.73200	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.09900	3.04000	-.80000	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.10200	3.16000	-.87166	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.10500	3.28000	-.94666	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.10800	3.40000	-.10266	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.11100	3.52000	-.11000	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.11400	3.64000	-.11866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.11700	3.76000	-.12866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.12000	3.88000	-.13966	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.12300	4.00000	-.15166	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.12600	4.12000	-.16466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.12900	4.24000	-.17866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.13200	4.36000	-.19366	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.13500	4.48000	-.20966	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.13800	4.60000	-.22666	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.14100	4.72000	-.24466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.14400	4.84000	-.26366	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.14700	4.96000	-.28366	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.15000	5.08000	-.30466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.15300	5.20000	-.32666	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.15600	5.32000	-.34966	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.15900	5.44000	-.37466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.16200	5.56000	-.40066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.16500	5.68000	-.42866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.16800	5.80000	-.45866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.17100	5.92000	-.49066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.17400	6.04000	-.52466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.17700	6.16000	-.56066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.18000	6.28000	-.59866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.18300	6.40000	-.63866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.18600	6.52000	-.68066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.18900	6.64000	-.72466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.19200	6.76000	-.77066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.19500	6.88000	-.81866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.19800	7.00000	-.86866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.20100	7.12000	-.92066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.20400	7.24000	-.97466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.20700	7.36000	-.10306	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.21000	7.48000	-.11266	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.21300	7.60000	-.12366	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.21600	7.72000	-.13566	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.21900	7.84000	-.14866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.22200	7.96000	-.16266	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.22500	8.08000	-.17766	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.22800	8.20000	-.19366	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.23100	8.32000	-.21066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.23400	8.44000	-.22866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.23700	8.56000	-.24766	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.24000	8.68000	-.26766	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.24300	8.80000	-.28866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.24600	8.92000	-.31066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.24900	9.04000	-.33466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.25200	9.16000	-.36066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.25500	9.28000	-.38866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.25800	9.40000	-.41866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.26100	9.52000	-.45066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.26400	9.64000	-.48466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.26700	9.76000	-.52066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.27000	9.88000	-.55866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.27300	10.00000	-.59866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.27600	10.12000	-.64066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.27900	10.24000	-.68466	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.28200	10.36000	-.73066	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.28500	10.48000	-.77866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.28800	10.60000	-.82866	.00000	-.00710	.00000	.00000	.00000
.100	1.150	1.1920	.05560	-.29100	10.72000	-.88066	.00000	-.00710	.00000	.00000	.00000
.10											

## TABULATED SOURCE FORCE DATA NAAL 701 OA16

(RDN243) ( 19 DEC 73 )

NR, 701, 0405 ORB B16C5D7F1G12W87V5X9+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2996 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 159.000  
 FLEVON = .000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 243/ 0 BN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	.040	.04260	.03010	.04120	.04270	.05010	.00100	-.00100	-.00100	.31350	.02548
.160	1.090	.10690	.04970	.03710	.10690	.04771	.00090	-.00100	.00000	.53510	.02506
.160	2.140	.16790	.05050	.03260	.16970	.04426	.00090	-.00090	.00000	.59090	.02396
.160	4.230	.26690	.05520	.02270	.29220	.03379	.00060	-.00100	.00100	.63200	.02336
.160	6.310	.40220	.06500	.01490	.30790	.02043	.00040	-.00080	.00100	.64750	.02235
.160	8.450	.52670	.08140	.00630	.52700	.00393	.00000	-.00060	.00200	.65360	.02227
.160	10.490	.64060	.10690	-.00370	.64940	-.01158	-.00040	-.00060	.00500	.66200	.02190
.160	12.640	.76300	.14090	-.01490	.77540	-.02947	-.00110	-.00200	.00800	.66690	.02202
.160	14.760	.90430	.17720	-.03240	.92470	-.03973	.00250	.00010	.00400	.67260	.02344
.160	16.840	1.02760	.27880	-.05040	1.06430	-.03080	.00150	.00140	.00700	.67690	.02866
.160	18.920	1.14040	.35250	-.06460	1.19310	-.03642	.00190	-.00070	.00000	.67940	.03091
.160	21.020	1.22480	.42870	-.06990	1.29710	-.03927	.00070	-.00490	.01700	.67930	.03299
.160	23.090	1.31870	.51450	-.07290	1.41490	-.04413	.00220	-.00690	.01700	.67850	.03852
.160	25.110	1.31470	.56590	-.04390	1.43070	-.04564	.00540	-.00770	.01300	.67100	.04987
.160	GRADIENT	.05870	.00129	-.01444	.05946	-.00397	-.00009	.00000	.00044	.06767	-.00053

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL 701

(R0244) ( 24 JUN 73 )

NR. 701.0405 ORB 816507F1J3612407V5X104G

PARAMETRIC DATA

BETA = .000 B. FLAP = -18.000  
 RUDDER = .000 CP-POS = 159.000  
 ELEVON = .000 ALLORN = .000  
 NACK/L = .000 LIP = 4.000

REFERENCE DATA

SEF = 4.4119 56.FT. 198P = 43.5974 INCHES  
 LREF = 19.2999 INCHES 198P = .0000 INCHES  
 BRP = 37.9349 INCHES 248P = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 244/ 0 RVAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAP
.100	.070	.04250	.06630	.04820	.04260	.06635	.00090	-.00130	.00000	.29380	.01945
.100	1.100	.10250	.06460	.04410	.10370	.06269	.00090	-.00120	.00000	.56720	.01980
.100	2.130	.16140	.06440	.04020	.16370	.05840	.00100	-.00110	.00000	.57170	.01887
.100	4.220	.27510	.06790	.03040	.27940	.04691	.00080	-.00100	.00100	.52090	.01757
.100	6.310	.38880	.07710	.02160	.39500	.03385	.00070	-.00100	.00200	.64030	.01692
.100	8.410	.50300	.09460	.01400	.51140	.01997	.00010	-.00070	.00400	.65010	.01693
.100	10.500	.61520	.11790	.00610	.62740	.00360	-.00010	-.00070	.00000	.65640	.01662
.100	12.590	.72700	.14890	-.00190	.74410	-.01303	-.00030	-.00030	.00500	.66090	.01708
.100	14.690	.84700	.19060	-.01090	.86770	-.03338	.00150	-.00100	.00400	.66450	.01703
.100	16.800	.97220	.25740	-.02500	1.00510	-.03454	.00370	.00250	-.00100	.66890	.02010
.100	18.890	1.06160	.34370	-.03930	1.12150	-.01424	.00300	.00590	.00300	.67260	.02474
.100	20.990	1.14720	.42860	-.04580	1.22470	-.01012	.00200	-.00100	.00600	.67340	.02913
.100	22.990	1.18170	.48960	-.04300	1.27870	-.01178	-.00140	.00110	.00900	.67200	.03468
.100	25.040	1.20910	.55040	-.02950	1.32840	-.01320	-.00200	-.00090	.02000	.66790	.04204
.100	GRADIENT	.05553	.00033	-.00426	.05653	-.00470	-.00002	.00007	.00025	.07840	-.00048

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB 816C507F1J3612W87E18V5X1D+GP

(R0N245) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = 5.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 245/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	COF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	.140	.17340	.03770	-.01010	.17360	.06733	.00030	-.00120	.00200	.68100	.02004
.160	1.160	.23060	.06660	-.01400	.23220	.06382	.00040	-.00120	.00100	.68170	.01971
.160	2.240	.26990	.07070	-.01890	.29250	.05926	.00030	-.00120	.00100	.68310	.01694
.160	4.290	.40050	.07807	-.02740	.40520	.04783	.00030	-.00120	.00100	.68430	.01635
.160	6.400	.50960	.09260	-.03660	.51680	.03519	.00010	-.00100	.00200	.68540	.01729
.160	8.500	.62070	.11310	-.04440	.63060	.02008	-.00010	-.00060	.00300	.68520	.01716
.160	10.590	.73090	.14090	-.05010	.74400	.00420	.00010	-.00030	.00000	.68410	.01712
.160	12.670	.84020	.17660	-.05460	.85850	-.01205	.00060	.00000	.00000	.68280	.01749
.160	14.760	.95060	.22090	-.06200	.97590	-.02888	.00330	-.00080	-.00500	.68280	.01771
.160	16.870	1.06160	.29650	-.07510	1.10200	-.02431	.00900	.00840	-.02300	.68440	.02152
.160	18.940	1.14400	.38380	-.08290	1.20660	-.00834	.00380	.00420	-.01100	.68460	.02745
.160	21.000	1.21630	.46820	-.08810	1.30330	.00112	.00090	-.00070	-.00400	.68420	.03293
.160	23.050	1.25990	.53430	-.08110	1.36850	-.00187	-.00020	.00000	-.00500	.68120	.03694
.160	25.060	1.26020	.58730	-.06210	1.39030	-.00248	-.00550	.00140	.00000	.67600	.04633
GRADIENT	.05473	.00256	.00256	-.00420	.05581	-.00476	-.00001	.00000	-.00019	.00082	-.00042

NR.701.0403 ORB B16C5C7F1J3G12W8TE18V3X10+GP

PARAMETRIC DATA

PETA = .000 B.FLAP = -18.000  
RUDDER = .000 CP-POS = 159.000  
ELEVON = 15.000 AIRLON = .000  
NACA/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 56.FT. YMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
PREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0403 SCALE

RUN NO. 246/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	ZAB
.160	.240	.36970	.08430	-.11420	.39000	.08265	.00010	-.00090	.00200	.76510	.02109
.160	1.310	.44530	.08890	-.11730	.44740	.07872	.00000	-.00090	.00300	.75400	.02122
.160	2.590	.49230	.09390	-.11860	.43580	.07360	.00010	-.00090	.00200	.74580	.01986
.160	4.420	.59060	.10750	-.12300	.59710	.06162	.00000	-.00090	.00300	.73390	.01923
.160	6.510	.71110	.12990	-.13800	.72130	.04839	-.00030	.00000	.01400	.72360	.01820
.160	8.800	.82110	.15810	-.14360	.83350	.03356	-.00040	.00000	.01300	.72160	.01779
.160	10.690	.91510	.19010	-.14420	.93450	.01723	-.00020	-.00010	.00300	.71540	.01720
.160	12.760	1.01780	.23150	-.14570	1.04380	.00064	.00030	-.00030	.0011	.71010	.01726
.160	14.870	1.10910	.27840	-.14650	1.14340	-.01354	.00030	-.00030	-.00330	.70590	.01758
.160	16.950	1.21790	.37060	-.15920	1.26640	.07147	.00840	.00930	-.01800	.70510	.02333
.160	19.030	1.29220	.47220	-.16830	1.37550	.02488	.01260	-.00240	-.00100	.69980	.03029
.160	21.090	1.35670	.55310	-.16210	1.45930	.02985	.00140	-.00820	.00100	.69370	.04155
.160	23.120	1.37670	.61250	-.14180	1.50660	.02262	.00260	.00080	-.00800	.68530	.05375
.160	25.110	1.32950	.64520	-.10430	1.47770	.02001	-.00260	.00080	-.00700	.68030	.06050
.160	GRADIENT	.04774	.09160	-.00204	.04923	-.00510	-.00002	-.00000	.00016	-.00731	-.00050



DATE 27 JUN 73

000047) ( 24 JUN 73 )

NO. 701.0003 OF 8 BLOCSTRIKES: SUBTYPE 151510000

PARAMETRIC DATA

BETA = .000 B.F.U.P. = -15.000  
P.DEEP = .000 CP-POS = 155.000  
ELEPH = -25.000 ALPHON = .000  
MATH = .000 LIP = 4.000

PERFORMANCE DATA

WOP = 4.4119 INCHES DWP = 45.2574 INCHES  
UPD = 19.2999 INCHES WOP = .0000 INCHES  
BOP = 37.9349 INCHES DWP = 19.2000 INCHES  
SCALE = .0005 SCALE

RUN NO. 247/ 0 BUL = 1.17 SEACIDT INTERVAL = -5.05/ 5.00

WOP	ALPHA	CL	COF	CLM	ON	CAF	CLN	CEL	CL	YCAL	CAB
.100	-1.240	-1.32470	.10170	.23300	-1.34200	.10000	.00070	-.00000	-.00000	.87700	.01907
.100	.790	-1.31270	.09320	.23340	-1.31100	.09787	.00070	-.00070	-.00000	.91300	.01904
.100	1.540	-1.27390	.08590	.22770	-1.27000	.09433	.00070	-.00000	-.00000	.94190	.01907
.100	3.310	-1.19410	.07410	.22190	-1.19000	.09119	.00070	-.00000	-.00000	1.16100	.01940
.100	8.010	-1.05700	.06770	.21590	-1.04000	.09337	.00070	-.00000	-.00000	2.21340	.01968
.100	15.000	-.04990	.06090	.21490	-.05900	.09111	.00070	-.00000	-.00000	-.64390	.01994
.100	10.200	.19990	.07590	.21590	.16170	.09601	.00070	-.00000	-.00000	.19170	.01970
.100	12.200	.26470	.06090	.21190	.27770	.09443	.00070	-.00000	-.00000	.38640	.01957
.100	14.390	.39140	.11000	.20670	.39940	.11101	.00070	-.00000	-.00000	.47370	.01818
.100	16.440	.45900	.16410	.19170	.52210	.11700	.00070	-.00000	-.00000	.52420	.01981
.100	18.570	.51440	.22470	.17670	.63450	.11700	.00070	-.00000	-.00000	.59300	.01993
.100	20.690	.71670	.27900	.16900	.76910	.10224	.00070	-.00000	-.00000	.59290	.02212
.100	22.720	.89290	.33590	.15300	.87110	-.00000	.00070	-.00000	-.00000	.59370	.02008
.100	24.900	.98190	.42410	.14400	.96970	-.00000	.00070	-.00000	-.00000	.96460	.01222
		.99337	-.04428	-.07311	.94490	-.00000	.00070	-.00000	-.00000	.96970	-.00742

DATE 27 SEP 73

(R0N248) ( 24 JUN 73 )

TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0403 ORB 816C507F1J3612487E18V5X10+CP

PARAMETRIC DATA

BETA = .000 B-FLAP = -10.000  
RUDDER = .000 GP-POS = 159.000  
ELEVON = .000 AILRON = 10.000  
NACK/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0403 SCALE

RUN NO. 248/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CLF	CLM	CLN	CAF	CSL	CY	CP/L	CAB
.160	.050	.03390	.07530	.04400	.00810	.07532	.04230	-.03100	.56770	.02108
.160	1.090	.11320	.07400	.04000	.00770	.07187	.04240	-.03400	.53450	.02043
.160	2.160	.17070	.07360	.03570	.00720	.06714	.04280	-.03500	.58600	.02001
.160	4.220	.28010	.07760	.02850	.00610	.05678	.04320	-.03600	.62410	.01960
.160	6.310	.39070	.08760	.01990	.00490	.04414	.04350	-.03900	.64200	.01864
.160	8.410	.50600	.10470	.01160	.00350	.02956	.04460	-.04100	.63170	.01883
.160	10.480	.61120	.12690	.00510	.00230	.01358	.04450	-.04400	.61700	.01817
.160	12.560	.72150	.15950	.00000	.00130	-.00268	.04460	-.04800	.60700	.01820
.160	14.690	.82930	.19680	-.01550	.00130	-.01993	.04270	-.04300	.66230	.01767
.160	16.780	.94950	.26940	-.02360	.00420	-.01631	.04810	-.04600	.66850	.01922
.160	18.850	1.03960	.34700	-.03130	-.00330	-.00758	.03780	-.02500	.67020	.02242
.160	20.940	1.10630	.42810	-.03650	.00431	-.00431	.02630	-.01900	.67100	.02790
.160	23.010	1.16650	.49280	-.03330	-.00650	-.00239	.02310	-.00700	.66940	.03219
.160	25.020	1.13290	.55280	-.02250	-.00860	-.00374	.01720	-.00900	.66610	.04436
GRADIENT		.03407	.00062	-.00372	-.00451	-.00451	.00223	-.00110	.03556	-.00034

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL 701

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NR. 701.0405 ORB 816C507F1J3612407E18V5X10+GP

(R04249) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 S.FLAP = -16.000  
 RUDDER = .070 CP-POS = 109.000  
 ELEVON = .000 AILRON = 10.000  
 MACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 249/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CDF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-4.120	-.17740	.06170	.03550	-.18280	.06879	.00970	.03840	-.02800	.72980	.02095
.100	-2.020	-.05660	.07450	.03240	-.05910	.07248	.00910	.03940	-.03000	.85670	.02063
.100	-1.000	.00020	.07230	.03090	-.00100	.07233	.00860	.03990	-.03100	3.27670	.02018
.100	.060	.05960	.07100	.02880	.05970	.07097	.00830	.04040	-.03400	.48670	.02032
.100	1.090	.11550	.07090	.02630	.11680	.06871	.00770	.04090	-.03500	.57890	.01943
.100	2.120	.16840	.07120	.02360	.17090	.06496	.00730	.04110	-.03600	.61020	.01958
.100	4.220	.27420	.07600	.02030	.27910	.05570	.00600	.04190	-.03800	.63370	.01845
.100	6.290	.37770	.08520	.01680	.38480	.04334	.00470	.04160	-.03900	.64420	.01811
.100	8.390	.49240	.10370	.01160	.50230	.03076	.00350	.04260	-.04400	.65160	.01892
.100	10.470	.59340	.12530	.00730	.60830	.01496	.00250	.04280	-.04800	.65560	.01803
.100	12.610	.70910	.15550	.00540	.72600	-.00302	.00160	.04330	-.05300	.65730	.01830
.100	14.670	.81630	.19430	.00110	.83890	-.01888	.00100	.04240	-.05600	.65940	.01831
.100	16.760	.93560	.25580	-.00740	.96960	-.02488	.00360	.04610	-.06300	.66340	.01960
.100	18.890	1.02900	.33900	-.01970	1.08340	-.01133	-.00340	.03840	-.04600	.66650	.02294
.100	20.900	1.10150	.41590	-.02210	1.17750	-.00449	-.00580	.02900	-.03400	.66670	.02732
.100	22.960	1.16460	.49530	-.01860	1.26160	-.00803	-.00730	.02430	-.02700	.66520	.03344
.100	25.020	1.19330	.54520	-.00770	1.31360	-.01154	-.00760	.01830	-.01800	.66210	.04007
GRADIENT		.05424	-.00070	-.00190	.05546	-.00162	-.00044	.00033	-.00146	-.08224	-.00029

NR.701.0405 ORB B16C907F1J5G12M7E18V5X1C+CP

(DK250) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 90.FT. XGRP = 43.9974 INCHES  
 LFCU = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2003 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 GP-POS = 109.000  
 ELEVON = -20.000 AIRLON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 250/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	ON	CAP	CLN	CSL	CY	XCP/L	CAB
.180	-4.430	-.59680	.13280	.21510	-.60730	.06615	.00030	-.00130	-.00300	.78710	.01851
.160	-2.330	-.48000	.11150	.21480	-.48410	.09183	.00030	-.00140	-.00200	.81900	.01700
.160	-1.270	-.42420	.10230	.21350	-.42640	.09288	.00070	-.00110	-.00200	.73960	.01639
.160	-.240	-.36880	.09410	.21190	-.36920	.09250	.00060	-.00110	-.00200	.85530	.01621
.160	.600	-.31400	.08690	.21080	-.31270	.09135	.00030	-.00120	-.00200	.90180	.01610
.160	1.840	-.25670	.08070	.20760	-.25400	.08891	.00060	-.00120	-.00300	.99320	.01538
.160	3.910	-.14860	.07050	.20260	-.14340	.08061	.00030	-.00090	-.00300	1.16670	.01489
.160	5.990	-.04470	.06600	.20020	-.03760	.07035	.00040	-.00090	-.00300	2.56880	.01470
.160	8.080	.06260	.06760	.20090	.07150	.05812	.00030	-.00060	-.00300	-.34790	.01478
.160	10.170	.16290	.07670	.20290	.17350	.04678	.00020	-.00060	-.00300	.24040	.01487
.160	12.270	.27310	.09220	.20210	.28650	.03208	.00090	-.00030	-.00300	.40670	.01562
.160	14.360	.38740	.11510	.20110	.40390	.01544	.00110	-.00060	-.00600	.48120	.01693
.160	16.460	.49720	.15210	.19510	.52000	.00476	.00390	.00060	-.01100	.52530	.01815
.160	18.590	.61690	.21930	.17800	.65470	.01165	.00130	-.00040	-.00400	.56240	.01997
.160	20.680	.71990	.27490	.16920	.77060	.00322	.00280	-.00060	-.00500	.58120	.02130
.160	22.710	.80760	.33130	.16310	.87310	-.00638	.00240	-.00010	-.00800	.59290	.02549
.160	24.800	.87830	.39620	.15700	.96350	-.00882	.00050	-.00170	-.00500	.60150	.02972
GRADIENT	.05387	-.00745	-.00745	-.00152	.05551	-.00067	-.00002	.00004	-.00005	.04216	-.00041

## PARAMETRIC DATA

BETA =	.000	0. FLAP =	-18.000
PLUDDER =	.000	GA-FVS =	199.000
ELFVH =	15.000	ALUBOM =	.000
MUCVL =	.000	LIP =	4.000

**UNCLASSIFIED DATA**

1997 =	4,411.9	1997 =	43,974
1997 =	19,299	1997 =	1,000
1997 =	27,319	1997 =	16,200
SCALE =	100'S	SCALE =	100'S

UNITS = 1.17 GRADIENT INTERVAL = -5.00 / 5.00

WASH	ALPHA	CL	COF	QUN	ON	CAP	QUN	COL	CT	WPL	CAB
.100	-3.970	1.1740	.07410	-1.11470	.11250	.06473	.00090	-.00070	.00000	.93070	.02310
.100	-1.810	.27120	.07810	-1.11900	.20000	.06474	.00020	-.00070	.00000	.81490	.02190
.100	-1.790	.39610	.07900	-1.11790	.32910	.06335	.00010	-.00000	.00400	.78940	.02127
.100	.1270	.37990	.08290	-1.11890	.37940	.06077	.00000	-.00000	.00400	.77240	.02142
.100	1.2070	.42400	.08490	-1.11700	.42990	.07697	.00000	-.00070	.00400	.75910	.020740
.100	2.340	.47320	.09240	-1.11870	.47660	.07096	.00000	-.00000	.00900	.74340	.02022
.100	4.410	.56490	.10590	-1.12060	.57110	.06217	.00020	-.00140	.00900	.73370	.01924
.100	6.310	.66090	.12740	-1.12900	.66690	.04342	-.00010	-.00090	.00900	.72790	.01845
.100	8.410	.76900	.15660	-1.13600	.81240	.03931	-.00030	-.00100	.00600	.72240	.01891
.100	10.600	.89190	.19690	-1.13990	.92490	.01906	.00000	-.00120	.00900	.71400	.01878
.100	12.810	1.01990	.23290	-1.13900	1.03790	.00242	.00000	-.00000	.00100	.70920	.01929
.100	14.900	1.0900	.26200	-1.14210	1.14000	-.01375	.00000	-.00000	-.00900	.70490	.01923
.100	16.990	1.2040	.28810	-1.15000	1.26120	-.00749	.00000	-.00100	-.00000	.70000	.02046
.100	19.010	1.2740	.40970	-1.15900	1.35420	.01954	.00000	-.00000	.00000	.70000	.03109
.100	21.090	1.3240	.59570	-1.17000	1.42910	.02540	.00000	-.00000	-.00100	.69700	.03060
.100	23.110	1.35200	.79190	-1.18000	1.47840	.01522	.00000	-.00000	.00000	.69000	.04172
.100	25.190	1.37670	.92990	-1.18900	1.49240	.01087	-.00000	.00100	-.00900	.68210	.05075
.100	27.210	1.39870	1.0999	-.00000	.00000	-.00076	-.00004	-.00007	.00000	.67040	.06048





PARAMETRIC DATA

BETA = .000  
RUECER = .000  
ELEVON = .000  
NACK/L = .000

REFERENCE DATA

SWEP = 4.4119 DEG  
YREF = 19.7799 INCHES  
BREF = 37.3343 INCHES  
SCALE = 0.0001

RUN NO. 254/ 0 RUL = 1.17 GRADIENT INTERVAL = -3.00/ 5.00

WCON	ALPHA	CL	QCF	CLM	ON	CAF	CLM	CSL	CY	KCP/L	CAS
.100	-4.114	-1.0770	.07910	.03390	-.19300	.06332	.00170	-.00180	-.00400	.72610	.02011
.100	-2.035	-.06790	.06870	.03370	-.06330	.06647	.00180	-.00140	-.00400	.84340	.01979
.100	-.970	-.07020	.06310	.03200	-.00130	.06318	.00190	-.00130	-.00300	1.27670	.01910
.100	.040	.03970	.06310	.03070	.05980	.06306	.00180	-.00140	-.00300	.87580	.01886
.100	1.030	.11810	.06220	.02820	.11930	.06701	.00140	-.00130	-.00200	.97510	.01829
.100	1.769	.17690	.06230	.02680	.17510	.05379	.00190	-.00130	-.00200	.80630	.01834
.100	4.115	.27790	.06640	.02220	.29400	.04499	.00130	-.00130	-.00100	.61280	.01758
.100	6.310	.41150	.07720	.01750	.41130	.03222	.00110	-.00130	-.00100	.04470	.01704
.100	8.500	.51040	.09360	.01340	.52690	.01899	.00030	-.00130	-.00100	.64930	.01720
.100	10.490	.63270	.12200	.01210	.64450	.00470	.00030	-.00130	-.00100	.65320	.01732
.100	12.280	.74440	.15610	.01140	.76050	-.00075	.00010	-.00100	-.00100	.65480	.01756
.100	14.670	.86130	.20090	.00880	.88400	-.02423	.00050	-.00100	-.00100	.65400	.01909
.100	16.770	.96480	.26470	-.00140	1.01930	-.07781	.00050	-.00100	-.00100	.66130	.02108
.100	18.680	1.07430	.35000	-.00780	1.13000	-.01604	.00050	-.00100	-.00100	.66240	.02451
.100	20.960	1.14540	.42100	-.00410	1.22100	-.01469	.00050	-.00100	-.00100	.66170	.02916
.100	22.960	1.20170	.49030	.00230	1.29780	-.01786	.00050	-.00100	-.00100	.65910	.03483
.100	24.960	1.18500	.53360	.01810	1.29770	-.01596	-.00210	.00000	-.00200	.65490	.04463
GRADIENT	.05733	-.07152	-.07152	-.00162	.05846	-.00246	-.00004	.00005	.00039	-.08033	-.00032



(R0255) ( 24 JUN 73 )

TABULATED SOURCE FORCE DATA-NAL 701

NR.701.0405 ORB B16C50771J5612AB7E18V3X10+GP

REFERENCE DATA

SEDF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
 LURF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 0.FLAP = -16.000  
 RUDDER = .000 GP-PUS = 109.000  
 ELEVON = 5.000 AIRLON = .000  
 NACA/L = .000 LIP = 4.000

PARAMETRIC DATA

RUN NO. 255/ 0 RM/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

DATA	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.090	-.06720	.07360	-.71590	-.07220	.06892	.00190	-.00200	-.00200	.58270	.02169
.160	-1.970	.05400	.06740	-.01800	.03160	.06922	.00120	-.00180	-.00100	.78320	.02049
.160	-.910	.11390	.06580	-.02010	.11240	.06760	.00130	-.00180	-.00200	.72410	.02012
.160	.110	.17190	.06310	-.02190	.17160	.06465	.00110	-.00170	.00000	.70390	.01976
.160	1.190	.22870	.06640	-.02460	.23000	.06179	.00100	-.00170	.00000	.69840	.01925
.160	2.210	.26660	.06960	-.02710	.26900	.05749	.00100	-.00180	.00000	.69360	.01907
.160	4.290	.39310	.07540	-.03100	.39770	.04583	.00090	-.00190	.00000	.68800	.01855
.160	6.360	.50230	.09920	-.03590	.50910	.03297	.00060	-.00190	.00000	.68330	.01766
.160	8.440	.61190	.11070	-.03990	.62110	.01979	.00010	-.00210	.00200	.68300	.01761
.160	10.540	.72410	.14030	-.04230	.73750	.00542	.00050	-.00210	.00200	.68050	.01767
.160	12.640	.82800	.17700	-.04240	.84660	-.00831	.00130	-.00190	.00000	.67790	.01798
.160	14.720	.93770	.22420	-.04470	.96390	-.02135	.00360	-.00230	-.00700	.67680	.01936
.160	16.820	1.05240	.26620	-.05360	1.09320	-.03065	.00560	-.00230	-.00300	.67760	.02146
.160	18.910	1.14140	.30660	-.05990	1.20320	-.00996	.00130	-.00120	.00300	.67780	.02705
.160	20.970	1.20000	.43260	-.05600	1.28260	-.00662	.00250	-.00320	.00600	.67620	.03047
.160	23.010	1.24510	.51710	-.04530	1.34820	-.01087	.00390	-.00260	-.00300	.67200	.03720
.160	25.000	1.21030	.55370	-.02300	1.33100	-.00963	.00280	-.00240	-.00300	.66620	.04760
.160			.00022	-.00193	.05646	-.00276	-.00005	.00001	.00027	.00484	-.00039

GRADIENT

NO. T01, DADS ONE BLOCKS OF 156128 BY 18V5110-CP

(R00238) (24 MIN 73)

## REFERENCE DATA

C/P = 4.4119 INCHES  
 L/P = 19.2799 INCHES  
 D/P = 37.9349 INCHES  
 SCALE = 1/400 SCALE

BETA = .070  
 B. PLAP = -18.000  
 R. DUCK = .070  
 CP-POS = 100.000  
 ELEVON = 15.000  
 AIRPON = .000  
 MACVAL = .000  
 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 256/ 0 RVAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CL	CLP	CLM	ON	CAP	CLM	COL	CY	KCP/L	C/P
.100	.14600	.07770	-.11190	.14100	.00757	.00110	-.00050	.00000	.94500	.01315
.100	.28190	.07800	-.11240	.23950	.00628	.00130	-.00020	-.00100	.81550	.02224
.100	.31700	.07930	-.11300	.31990	.00559	.00140	-.00010	.00000	.76840	.02100
.100	.35770	.08260	-.11400	.37110	.00797	.00150	-.00020	.00000	.77050	.02122
.100	.41970	.08590	-.11410	.42100	.07662	.00150	-.00020	.00000	.75720	.02502
.100	.47110	.09100	-.11550	.47440	.07241	.00150	-.00060	.00000	.74750	.02043
.100	.56710	.10420	-.11710	.57340	.06028	.00180	-.00100	.00000	.73370	.03354
.100	.67210	.12690	-.12690	.70000	.04789	.00170	-.00190	.00000	.72550	.01320
.100	.80310	.15790	-.13120	.81980	.03403	.00150	-.00060	.00000	.71740	.01807
.100	.91190	.19400	-.13790	.93120	.02147	.00150	-.00040	.00000	.71040	.01865
.100	1.01190	.23630	-.12890	1.03890	.07687	.00210	.00010	-.00100	.70450	.01320
.100	1.11640	.29470	-.13060	1.15650	-.00341	.00450	-.00020	-.00000	.70090	.02129
.100	1.21640	.37170	-.13750	1.27250	.00280	.00130	.00030	.00000	.69870	.02467
.100	1.36000	.45000	-.13040	1.34820	.00768	.00100	-.00270	.00000	.69470	.03059
.100	1.55200	.53320	-.12350	1.43460	.01911	.00260	-.00470	.00000	.69090	.03400
.100	1.74440	.61470	-.06640	1.46480	.00691	.00340	-.00310	-.00000	.68550	.04194
.100	1.98310	.61470	-.06350	1.47270	.01275	-.00020	-.00000	.00100	.67800	.03499
.100	.09032	.00321	-.00040	.00595	-.00350	.00000	-.00007	.00005	-.02317	-.00044

GRADIENT

DATE 27 SEP 75 TABULATED SOURCE FILE DATA-NAAL 701

(RMK57) ( 24 JUN 75 )

NR.701.0403 ORB B16C507F1J5612407E18V5X104GP

REFERENCE DATA

REF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
 UREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES YMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POC = 109.000  
 ELEVON = -20.000 AILRON = .000  
 MAC/L = .000 LIP = 4.000

RUN NO. 257/ 0 RUN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.440	-.62710	.14270	.22090	-.63740	.09364	.00070	.00060	-.00300	.78450	.01840
.160	-2.310	-.90010	.11740	.21780	-.50440	.09702	.00070	.00050	-.00300	.81500	.01720
.160	-1.280	-.43950	.10730	.21660	-.44180	.09751	.00080	.00070	-.00300	.83580	.01695
.160	-.210	-.37990	.09800	.21400	-.38030	.09684	.00060	.00050	-.00300	.86190	.01637
.160	.800	-.32080	.09000	.21200	-.31950	.09457	.00070	.00070	-.00300	.89830	.01634
.160	1.640	-.26210	.08400	.20930	-.25920	.09244	.00060	.00080	-.00400	.94970	.01573
.160	3.950	-.14970	.07260	.20440	-.14430	.08277	.00060	.00070	-.00500	1.16430	.01575
.160	6.020	-.03810	.06770	.20240	-.03080	.07133	.00070	.00100	-.00700	3.01580	.01666
.160	8.110	.07190	.06880	.20050	.08090	.05798	.00060	.00070	-.00300	.27290	.01562
.160	10.220	.17870	.07910	.20480	.18990	.04618	.00030	.00070	-.00300	.41050	.01598
.160	12.290	.28320	.09600	.20650	.29710	.03350	.00020	.00020	-.00300	.48070	.01715
.160	14.360	.39670	.12270	.20710	.41480	.02035	.00040	-.00020	-.00300	.52400	.01793
.160	16.480	.51170	.15830	.20390	.53580	.00685	.00060	-.00020	-.00300	.56450	.01962
.160	18.590	.63740	.23160	.18030	.67800	.01630	.00000	.00000	-.00250	.57650	.02123
.160	20.660	.72710	.28160	.18120	.77970	.00686	.00050	-.00140	-.00300	.58730	.02674
.160	22.710	.79590	.33770	.17500	.96460	.00416	.00190	-.00090	-.00300	.59580	.03367
.160	24.800	.84070	.39700	.16630	.92970	.00769	-.00080	-.00080	-.00400	.59580	.03367
GRADIENT		.05700	-.00830	-.00199	.05873	-.00126	-.00002	.00002	-.00023	.04247	-.00032

NR.T01.0405 ORB B16C507F1J5612W87E10V5X10+CP

(R06259) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 58.1FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 DREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = 18.000  
 RUDDER = .000 CP-POS = 109.000  
 ELEVON = .000 AILERON = 10.000  
 NACX/L = .000 LIP = 4.000

RUN NO. 259/ 0 RV/L = 1.17 GRADIENT INTERVAL = -.5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.110	-1.17970	.08730	.03470	-.18550	.07416	.01040	.03770	-.02990	.72720	.02092
.160	-2.020	-.05620	.07720	.03270	-.05890	.07523	.00990	.03680	-.03400	.85910	.02050
.160	-.890	.00390	.07290	.03040	.00280	.07302	.00940	.03920	-.03550	-3.19640	.02014
.160	.060	.06230	.07210	.02860	.06240	.07212	.00820	.03990	-.03790	.49390	.02002
.160	1.080	.12000	.07100	.02650	.12130	.06871	.00870	.04010	-.03900	.58150	.01950
.160	2.150	.17740	.07130	.02510	.18000	.06461	.00810	.04040	-.03900	.60900	.01926
.160	4.220	.23450	.07500	.02160	.28920	.04392	.00690	.04090	-.04100	.63310	.01845
.160	6.310	.39070	.08450	.01800	.39760	.04101	.00350	.04140	-.04100	.64370	.01794
.160	8.470	.50590	.10330	.01300	.51320	.02840	.00380	.04290	-.04800	.69090	.01819
.160	10.490	.61370	.12740	.00950	.62860	.01310	.00200	.04320	-.04900	.65450	.01810
.160	12.580	.72630	.16200	.00810	.74420	-.00012	.00060	.04350	-.05000	.65600	.01853
.160	14.650	.83540	.20470	.00550	.86000	-.01330	-.00080	.04300	-.05100	.65760	.01909
.160	16.790	.94090	.26990	-.00320	.98640	-.01507	.00390	.04400	-.06500	.66190	.02031
.160	18.840	1.03210	.34790	-.00780	1.08900	-.00468	-.00610	.03380	-.03500	.66250	.02297
.160	20.900	1.09890	.41570	-.00180	1.17490	-.00379	-.00630	.02880	-.03100	.66050	.02787
.160	22.950	1.14980	.47870	.00170	1.24590	-.00768	-.00780	.02790	-.03500	.65940	.03454
.160	24.990	1.14640	.52710	.01310	1.26180	-.07665	-.01370	.02610	-.02700	.65620	.04318
GRADIENT		.05592	-.00145	-.00164	.05719	-.00244	-.00042	.00039	-.00142	.05981	-.00030

DATE 19 DEC 73

TABULATED SOURCE FORCE DATA NAAL 701 0A16

PAGE 177

NR, 701, 0405 OFB B16C507F1612A07E18VX10+GP

(RDN260) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRFF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 109.000  
 ELEVON = .000 AILTON = 10.000

RUN NO. 260/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCF/L	CAB
.160	-4.130	-1.8100	.07380	.03230	-1.18580	.06055	.01030	.03910	-.02800	.72240	.02100
.160	-2.040	-.05460	.06520	.02800	-.05690	.06325	.00980	.03960	-.03200	.83700	.02015
.160	-.980	.00640	.06230	.02580	.00330	.06261	.00960	.04020	-.03400	-1.07330	.02020
.160	.030	.06540	.06130	.02290	.06540	.06154	.00920	.04040	-.03300	.93390	.01986
.160	1.090	.12340	.06110	.02090	.12460	.05882	.00870	.04070	-.03700	.59950	.01926
.160	2.130	.17980	.06210	.01800	.18200	.05540	.00800	.04080	-.03750	.62430	.01897
.160	4.270	.28640	.06550	.01480	.29050	.04402	.00670	.04100	-.03900	.64170	.01855
.160	6.300	.38890	.07570	.01020	.39490	.03252	.00550	.04120	-.04100	.65070	.01787
.160	8.370	.49330	.09100	.00490	.50730	.01732	.00410	.04190	-.04400	.65640	.01801
.160	10.460	.61520	.11590	-.00360	.62600	.00223	.00250	.04350	-.04800	.66210	.01786
.160	12.580	.73270	.14810	-.01030	.74740	-.01505	.00080	.04330	-.04900	.66490	.01812
.160	14.680	.85280	.19920	-.02150	.87540	-.02353	.00200	.04510	-.05500	.66880	.01921
.160	16.750	.96810	.27060	-.03630	1.00500	-.02901	-.00240	.04440	-.05000	.67230	.02144
.160	18.860	1.06970	.34210	-.04400	1.12290	-.02213	-.00620	.03860	-.04000	.67400	.02401
.160	20.930	1.15240	.41550	-.04460	1.22480	-.02364	-.00950	.03500	-.03200	.67300	.02691
.160	22.990	1.23890	.49490	-.04540	1.33380	-.02834	-.01270	.03400	-.03000	.67220	.03058
.160	25.020	1.23870	.54420	-.01750	1.35260	-.03087	-.01010	.01780	-.00300	.66400	.03810
GRADIENT		.05578	-.02932	-.00216	.05685	-.00195	-.02943	.00024	-.00129	.02055	-.00030

NR. T01.0A05 OFB B16C407F1612W47E18V310+GP

(RDN261) ( 19 DEC 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0700 INCHES  
 BREF = 37.3349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = 1.4 E-5 SCALE

## PARAMETRIC DATA

BETA = .0000 B-FLAP = -14.000  
 RUDDER = .0000 GP-POS = 100.000  
 ELECON = -20.0000 AILERON = .0000  
 NAC/FL = .0000 LIP = 0.000

RUN NO. 261/ 0 EN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	FOR/L	CAB
.160	-4.410	-61743	.12110	.22590	-1.62490	.07322	.00100	-.00010	-.00200	.7100	.01763
.160	-2.120	-143000	.09430	.21690	-1.49490	.07841	.00080	-.00040	-.00200	.81740	.01640
.160	-1.050	-14270	.04850	.21380	-1.42880	.07919	.00080	-.00060	-.00200	.81830	.01678
.160	-0.230	-137100	.04190	.21240	-1.37210	.07943	.00100	-.00090	-.00200	.85240	.01537
.160	.000	-111240	.07350	.21000	-1.21130	.07401	.00100	-.00110	-.00300	.90200	.01609
.160	1.400	-22417	.06730	.20690	-1.25200	.07553	.00090	-.00120	-.00200	.95460	.01506
.160	3.130	-11470	.05740	.20370	-1.13640	.06694	.00090	-.00200	-.00300	1.14400	.01673
.160	6.140	-1120	.05300	.19820	-1.02210	.05567	.00080	-.00140	-.00300	-2.72620	.01686
.160	9.110	.17760	.05120	.19330	-.06300	.04198	.00070	-.00100	-.00300	-1.18360	.01674
.160	10.130	.17760	.04210	.18640	.14580	.02973	.00050	-.00120	-.00200	.12070	.01545
.160	12.280	.19110	.03690	.18370	.25120	.01901	.00060	-.00160	-.00200	.42320	.01571
.160	14.400	.4120	.0343	.1830	.42260	-.00087	.00060	-.00110	-.00300	.49900	.01649
.160	16.460	.5245	.0313	.1820	.54550	-.00454	-.00010	.00000	-.00300	.54140	.01403
.160	18.560	.64030	.02450	.16020	.67340	-.00610	.00040	.00000	-.00300	.57030	.01446
.160	20.660	.73740	.02930	.15570	.74310	-.01435	.00000	.00000	-.00300	.54430	.01310
.160	22.740	.8440	.02470	.15970	.93210	-.02179	-.00000	-.00000	.00300	.59920	.02213
.160	24.830	.92400	.04700	.14700	1.01110	-.02665	-.00260	.00000	.00400	.60770	.02544
GRADIENT		.05037	-.00749	-.00239	.05839	-.00073	-.00000	-.00022	-.00011	.00429	-.00011

0100 :CA TERN VLAZ 30000. 03.07.85

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THE UNIVERSITY OF CHICAGO

**VASSILAKIS**

$$\begin{aligned} 55^\circ A &= 100 & 55^\circ A &= 100 \\ 55^\circ B &= 100 & 55^\circ B &= 100 \\ 55^\circ C &= 100 & 55^\circ C &= 100 \\ 55^\circ D &= 100 & 55^\circ D &= 100 \end{aligned}$$

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[illegible]

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DATE 19 DEC 73

TABULATED SOURCE FORCE DATA NUAL T5: 0418

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PARAMETRIC DATA

REFERENCE DATA

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REF NO. 203/0 REF = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

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<sub>530</sub>	C <sub>531</sub>	C <sub>532</sub>	C <sub>533</sub>	C <sub>534</sub>	C <sub>535</sub>	C <sub>536</sub>	C <sub>537</sub>	C <sub>538</sub>	C <sub>539</sub>	C <sub>540</sub>	C <sub>541</sub>	C <sub>542</sub>	C <sub>543</sub>	C <sub>544</sub>	C <sub>545</sub>	C <sub>546</sub>	C <sub>547</sub>	C <sub>548</sub>	C <sub>549</sub>	C <sub>550</sub>	C <sub>551</sub>	C <sub>552</sub>	C <sub>553</sub>	C <sub>554</sub>	C <sub>555</sub>	C <sub>556</sub>	C <sub>557</sub>	C <sub>558</sub>	C <sub>559</sub>	C <sub>560</sub>	C <sub>561</sub>	C <sub>562</sub>	C <sub>563</sub>	C <sub>564</sub>	C <sub>565</sub>	C <sub>566</sub>	C <sub>567</sub>	C <sub>568</sub>	C <sub>569</sub>	C <sub>570</sub>	C <sub>571</sub>	C <sub>572</sub>	C <sub>573</sub>	C <sub>574</sub>	C <sub>575</sub>	C <sub>576</sub>	C <sub>577</sub>	C <sub>578</sub>	C <sub>579</sub>	C <sub>580</sub>	C <sub>581</sub>	C <sub>582</sub>	C <sub>583</sub>	C <sub>584</sub>	C <sub>585</sub>	C <sub>586</sub>	C <sub>587</sub>	C <sub>588</sub>	C <sub>589</sub>	C <sub>590</sub>	C <sub>591</sub>	C <sub>592</sub>	C <sub>593</sub>	C <sub>594</sub>	C <sub>595</sub>	C <sub>596</sub>	C <sub>597</sub>	C <sub>598</sub>	C <sub>599</sub>	C <sub>600</sub>	C <sub>601</sub>	C <sub>602</sub>	C <sub>603</sub>	C <sub>604</sub>	C <sub>605</sub>	C <sub>606</sub>	C <sub>607</sub>	C <sub>608</sub>	C <sub>609</sub>	C <sub>610</sub>	C <sub>611</sub>	C <sub>612</sub>	C <sub>613</sub>	C <sub>614</sub>	C <sub>615</sub>	C <sub>616</sub>	C <sub>617</sub>	C <sub>618</sub>	C <sub>619</sub>	C <sub>620</sub>	C <sub>621</sub>	C <sub>622</sub>	C <sub>623</sub>	C <sub>624</sub>	C <sub>625</sub>	C <sub>626</sub>	C <sub>627</sub>	C <sub>628</sub>	C <sub>629</sub>	C <sub>630</sub>	C <sub>631</sub>	C <sub>632</sub>	C <sub>633</sub>	C <sub>634</sub>	C <sub>635</sub>	C <sub>636</sub>	C <sub>637</sub>	C <sub>638</sub>	C <sub>639</sub>	C <sub>640</sub>	C <sub>641</sub>	C <sub>642</sub>	C <sub>643</sub>	C <sub>644</sub>	C <sub>645</sub>	C <sub>646</sub>	C <sub>647</sub>	C <sub>648</sub>	C <sub>649</sub>	C <sub>650</sub>	C <sub>651</sub>	C <sub>652</sub>	C <sub>653</sub>	C <sub>654</sub>	C <sub>655</sub>	C <sub>656</sub>	C <sub>657</sub>	C <sub>658</sub>	C <sub>659</sub>	C <sub>660</sub>	C <sub>661</sub>	C <sub>662</sub>	C <sub>663</sub>	C <sub>664</sub>	C <sub>665</sub>	C <sub>666</sub>	C <sub>667</sub>	C <sub>668</sub>	C <sub>669</sub>	C <sub>670</sub>	C <sub>671</sub>	C <sub>672</sub>	C <sub>673</sub>	C <sub>674</sub>	C <sub>675</sub>	C <sub>676</sub>	C <sub>677</sub>	C <sub>678</sub>	C <sub>679</sub>	C <sub>680</sub>	C <sub>681</sub>	C <sub>682</sub>	C <sub>683</sub>	C <sub>684</sub>	C <sub>685</sub>	C <sub>686</sub>	C <sub>687</sub>	C <sub>688</sub>	C <sub>689</sub>	C <sub>690</sub>	C <sub>691</sub>	C <sub>692</sub>	C <sub>693</sub>	C <sub>694</sub>	C <sub>695</sub>	C <sub>696</sub>	C <sub>697</sub>	C <sub>698</sub>	C <sub>699</sub>	C <sub>700</sub>	C <sub>701</sub>	C <sub>702</sub>	C <sub>703</sub>	C <sub>704</sub>	C <sub>705</sub>	C <sub>706</sub>	C <sub>707</sub>	C <sub>708</sub>	C <sub>709</sub>	C <sub>710</sub>	C <sub>711</sub>	C <sub>712</sub>	C <sub>713</sub>	C <sub>714</sub>	C <sub>715</sub>	C <sub>716</sub>	C <sub>717</sub>	C <sub>718</sub>	C <sub>719</sub>	C <sub>720</sub>	C <sub>721</sub>	C <sub>722</sub>	C <sub>723</sub>	C <sub>724</sub>	C <sub>725</sub>	C <sub>726</sub>	C <sub>727</sub>	C <sub>728</sub>	C <sub>729</sub>	C <sub>730</sub>	C <sub>731</sub>	C <sub>732</sub>	C <sub>733</sub>	C <sub>734</sub>	C <sub>735</sub>	C <sub>736</sub>	C <sub>737</sub>	C <sub>738</sub>	C <sub>739</sub>	C <sub>740</sub>	C <sub>741</sub>	C <sub>742</sub>	C <sub>743</sub>	C <sub>744</sub>	C <sub>745</sub>	C <sub>746</sub>	C <sub>747</sub>	C <sub>748</sub>	C <sub>749</sub>	C <sub>750</sub>	C <sub>751</sub>	C <sub>752</sub>	C <sub>753</sub>	C <sub>754</sub>	C <sub>755</sub>	C <sub>756</sub>	C <sub>757</sub>	C <sub>758</sub>	C <sub>759</sub>	C <sub>760</sub>	C <sub>761</sub>	C <sub>762</sub>	C <sub>763</sub>	C <sub>764</sub>	C <sub>765</sub>	C <sub>766</sub>	C <sub>767</sub>	C <sub>768</sub>	C <sub>769</sub>	C <sub>770</sub>	C <sub>771</sub>	C <sub>772</sub>	C <sub>773</sub>	C <sub>774</sub>	C <sub>775</sub>	C <sub>776</sub>	C <sub>777</sub>	C <sub>778</sub>	C <sub>779</sub>	C <sub>780</sub>	C <sub>781</sub>	C <sub>782</sub>	C <sub>783</sub>	C <sub>784</sub>	C <sub>785</sub>	C <sub>786</sub>	C <sub>787</sub>	C <sub>788</sub>	C <sub>789</sub>	C <sub>790</sub>	C <sub>791</sub>	C <sub>792</sub>	C <sub>793</sub>	C <sub>794</sub>	C <sub>795</sub>	C <sub>796</sub>	C <sub>797</sub>	C <sub>798</sub>	C <sub>799</sub>	C <sub>800</sub>	C <sub>801</sub>	C <sub>802</sub>	C <sub>803</sub>	C <sub>804</sub>	C <sub>805</sub>	C <sub>806</sub>	C <sub>807</sub>	C <sub>808</sub>	C <sub>809</sub>	C <sub>810</sub>	C <sub>811</sub>	C <sub>812</sub>	C <sub>813</sub>	C <sub>814</sub>	C <sub>815</sub>	C <sub>816</sub>	C <sub>817</sub>	C <sub>818</sub>	C <sub>819</sub>	C <sub>820</sub>	C <sub>821</sub>	C <sub>822</sub>	C <sub>823</sub>	C <sub>824</sub>	C <sub>825</sub>	C <sub>826</sub>	C <sub>827</sub>	C <sub>828</sub>	C <sub>829</sub>	C <sub>830</sub>	C <sub>831</sub>	C <sub>832</sub>	C <sub>833</sub>	C <sub>834</sub>	C <sub>835</sub>	C <sub>836</sub>	C <sub>837</sub>	C <sub>838</sub>	C <sub>839</sub>	C <sub>840</sub>	C <sub>841</sub>	C <sub>842</sub>	C <sub>843</sub>	C <sub>844</sub>	C <sub>845</sub>	C <sub>846</sub>	C <sub>847</sub>	C <sub>848</sub>	C <sub>849</sub>	C <sub>850</sub>	C <sub>851</sub>	C <sub>852</sub>	C <sub>853</sub>	C <sub>854</sub>	C <sub>855</sub>	C <sub>856</sub>	C <sub>857</sub>	C <sub>858</sub>	C <sub>859</sub>	C <sub>860</sub>	C <sub>861</sub>	C <sub>862</sub>	C <sub>863</sub>	C <sub>864</sub>	C <sub>865</sub>	C <sub>866</sub>	C <sub>867</sub>	C <sub>868</sub>	C <sub>869</sub>	C <sub>870</sub>	C <sub>871</sub>	C <sub>872</sub>	C <sub>873</sub>	C <sub>874</sub>	C <sub>875</sub>	C <sub>876</sub>	C <sub>877</sub>	C <sub>878</sub>	C <sub>879</sub>	C <sub>880</sub>	C <sub>881</sub>	C <sub>882</sub>	C <sub>883</sub>	C <sub>884</sub>	C <sub>885</sub>	C <sub>886</sub>	C <sub>887</sub>	C <sub>888</sub>	C <sub>889</sub>	C <sub>890</sub>	C <sub>891</sub>	C <sub>892</sub>	C <sub>893</sub>	C <sub>894</sub>	C <sub>895</sub>	C <sub>896</sub>	C <sub>897</sub>	C <sub>898</sub>	C <sub>899</sub>	C <sub>900</sub>	C <sub>901</sub>	C <sub>902</sub>	C <sub>903</sub>	C <sub>904</sub>	C <sub>905</sub>	C <sub>906</sub>	C <sub>907</sub>	C <sub>908</sub>	C <sub>909</sub>	C <sub>910</sub>	C <sub>911</sub>
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DATE 19 DEC 73

LABORATORY SOURCE FORCE DATA NAAL 701 CM18

160N265) 19 DEC 73

GEOPHYSIC DATA

DATE = 4.11.73 TIME = 43.5574 INCHES  
 DATE = 19.09.73 TIME = 1.0000 INCHES  
 DATE = 19.11.73 TIME = 16.0000 INCHES  
 DATE = 1.4.74 TIME = 1.4.74

PARAMETRIC DATA

BETA = 1.000 9. FLAP = -10.00  
 SLOPE = 1.000 SP-POS = 7.000  
 ELEVA = 1.000 AIL-EN = 1.000  
 MAGN/L = 1.000 LIT = 1.000

EXP NO. 265/0 EN/L = 1.17 GRADIENT INTERVAL = -5.00/ 1.00

DATE	TIME	FLAP	SP-POS	ELEVA	AIL-EN	MAGN/L	LIT
4.11.73	43.5574	-10.00	7.000	1.000	1.000	1.000	1.000
19.09.73	1.0000	-10.00	7.000	1.000	1.000	1.000	1.000
19.11.73	16.0000	-10.00	7.000	1.000	1.000	1.000	1.000
1.4.74	1.4.74	-10.00	7.000	1.000	1.000	1.000	1.000

DATE 19 DEC 73

TABULATED SOURCE FORCE DATA NAAL 701 0A16

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NR.701.0405 ORB B16C507F1G12W07E18V5X9+CP

(RDZ66) ( 19 DEC 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = -10.000  
RUDDER = .000 GP-POS = 7.780  
ELEVON = 15.000 AILRON = .000  
NACK/L = .000 LIP = 4.000

PARAMETRIC DATA

RUN NO. 266/ 0 RN/L = 1.17 GRADIENT INTERVAL = -9.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	YCP/L	CAB
.160	-3.910	.17180	.06640	-.12930	.16680	.07804	.00100	-.00100	.00200	.93810	.02356
.160	-1.850	.27010	.06970	-.12940	.26770	.07847	.00060	-.00100	.00300	.83350	.02275
.160	-.800	.32030	.07310	-.13090	.31930	.07762	.00070	-.00090	.00300	.80710	.02235
.160	.260	.36740	.07660	-.13060	.36780	.07500	.00080	-.00090	.00300	.78740	.02173
.160	1.260	.41480	.08130	-.13040	.41650	.07217	.00070	-.00100	.00300	.77240	.02159
.160	2.300	.45760	.08620	-.12910	.46070	.06785	.00070	-.00120	.00400	.76050	.02106
.160	4.350	.54590	.09960	-.12810	.55190	.05782	.00090	-.00060	.00400	.74330	.02034
.160	6.450	.64770	.11820	-.13150	.65690	.04468	.00080	-.00030	.00300	.73180	.02025
.160	8.590	.77380	.14770	-.14300	.78720	.03047	.00020	.00040	.00400	.72520	.02056
.160	10.620	.88510	.18240	-.14910	.90360	.01615	.00030	.00000	.00300	.71920	.02074
.160	12.700	.98640	.22210	-.14880	1.01110	-.00026	.00000	.00010	.00400	.71280	.02113
.160	14.790	1.09940	.26050	-.15620	1.13460	-.00058	.00470	.00180	-.00400	.70940	.02244
.160	16.850	1.18510	.36460	-.16370	1.23990	.00332	.00290	.00870	-.00800	.70730	.02854
.160	18.940	1.28040	.44550	-.17000	1.35570	.00357	.00110	.00490	-.00200	.70500	.03328
.160	21.000	1.33990	.51920	-.16120	1.43700	.00447	-.00090	.00380	.00300	.70020	.03805
.160	23.050	1.38060	.58880	-.14040	1.50090	.00113	-.00040	.00000	.01100	.69350	.04295
.160	25.040	1.34740	.62700	-.09770	1.48620	-.00247	.00440	-.01570	.03100	.68350	.05139
.160		.04530	.00401	.00013	.04663	-.00247	-.00000	.00003	.00023	-.02214	-.00039

GRADIENT



(RDN268) ( 19 DEC 75 )

TABULATED SOURCE FORCE DATA NAAL 751 QAL6

NR, 701, 0405 QNB B16L507F1612JWB18V5X9\*CP

DATE 19 DEC 75

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = 19.2999 INCHES  
 BREF = 37.9349 INCHES ZMRP = 15.2000 INCHES  
 SCALE = 10405 SCALE

BETA = .0000 B.FLAP = -19.0000  
 RUDDER = .0000 GF-POS = 7.780  
 ELEVON = -20.0000 AIRLON = .0000  
 NACX/L = .0000 LIP = 4.0000

PARAMETRIC DATA

RUN NO. 268/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-4.330	-53300	.10950	.18490	-.53970	.06898	.00150	-.00150	-.00400	.76290	.01588
.100	-2.250	-42240	.09130	.18140	-.42560	.07456	.00140	-.00280	-.00300	.81290	.01551
.100	-1.210	-37150	.08470	.18100	-.37330	.07687	.00140	-.00250	-.00300	.83400	.01559
.100	-.190	-.32140	.07770	.17980	-.32080	.07662	.00140	-.00230	-.00400	.86120	.01553
.100	.280	-.26160	.07100	.17640	-.25950	.07504	.00130	-.00210	-.00300	.90380	.01519
.100	1.080	-.21280	.06610	.17520	-.21050	.07312	.00130	-.00210	-.00300	.95860	.01457
.100	3.960	-.11590	.05090	.17150	-.11160	.06628	.00110	-.00260	-.00300	1.26600	.01409
.100	6.060	-.09650	.05410	.16980	-.09760	.06253	.00100	-.00180	-.00300	3.27670	.01535
.100	8.120	.00280	.05670	.17300	-.09980	.06231	.00100	-.00320	-.00300	.03820	.01565
.100	10.210	.10930	.06420	.17550	.15770	.06251	.00080	-.00450	-.00100	.34130	.01466
.100	12.270	.20390	.07840	.18130	.29410	.06163	.00090	-.00390	-.00270	.43870	.01469
.100	14.360	.39120	.10190	.18120	.40320	.06193	.00090	-.00170	-.00300	.49870	.01557
.100	16.440	.57150	.14380	.17820	.52460	.06493	.00050	-.00210	-.00300	.53800	.01698
.100	18.530	.67460	.18820	.17410	.63300	.06132	-.00050	.00210	.00000	.56120	.01740
.100	20.610	.77080	.25420	.16670	.75390	.06135	.00000	-.00000	.00000	.58060	.01862
.100	22.700	.87340	.31420	.16050	.86240	.06016	-.00030	-.00060	.00000	.59310	.02157
.100	24.770	.98640	.34710	.15650	.97620	.06240	-.00170	-.00050	.00000	.60240	.02516
.100	GRADIENT	.05145	-.00612	-.0162	.05278	-.00036	-.00004	-.00009	.00009	.05268	-.00002

DATE 19 DEC 73

## TABULATED SOURCE FORCE DATA NAAL 701 0018

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NR 701 0405 ORB 816C50FF1612407E18V8X9.GP

(SDR289) ( 19 DEC 73 )

## REFERENCE DATA

SACP = 4.4119 50.FT. YMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = 1000'S SCALE

## PARAMETRIC DATA

DETA = .0000 5.FLAP = -16.000  
 RUDDER = .0000 GP-POS = 7.780  
 ELECON = .0000 AILERON = 10.000  
 MACK/L = .0000 LIP = 4.000

RUN NO. 289/0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLN	CN	CAF	CLN	CSL	CY	ACP/L	CAB
.100	-4.170	-.13520	.06760	.01420	-.13370	.05795	.01030	.03690	-.13300	.09550	.01338
.100	-2.010	-.02750	.06220	.01160	-.02970	.05128	.00980	.03780	-.03300	.09130	.01399
.100	-1.000	-.02460	.06050	.01110	.02360	.06100	.00940	.03420	-.03300	.09130	.01368
.100	.000	.07450	.05960	.03020	.07460	.05077	.00900	.03440	-.03300	.09130	.01326
.100	1.000	.12700	.06040	.06850	.12890	.05806	.00850	.03510	-.03300	.09130	.01297
.100	2.000	.17400	.06120	.09770	.17810	.05471	.00790	.03590	-.03300	.09130	.01264
.100	4.000	.22000	.06600	.09630	.27900	.04581	.00550	.04070	-.04100	.05360	.01209
.100	6.000	.27500	.07510	.09400	.37900	.03382	.00420	.04220	-.04500	.05360	.01179
.100	8.000	.34000	.08350	.09200	.48400	.02142	.00280	.04220	-.04500	.05360	.01148
.100	10.000	.41500	.11100	.09200	.59400	.01588	.00200	.04220	-.04500	.05360	.01118
.100	12.000	.50000	.14400	.09200	.71000	-.01025	.00120	.04220	-.04500	.05360	.01088
.100	14.000	.60000	.18000	.09200	.82000	-.02630	.00040	.04220	-.04500	.05360	.01058
.100	16.000	.72000	.22000	.09200	.95200	-.02700	.00020	.04220	-.04500	.05360	.01028
.100	18.000	.88000	.27000	.09200	1.07100	-.01840	.00010	.04220	-.04500	.05360	.01000
.100	20.000	1.10000	.33000	.09200	1.17400	-.02395	.00000	.04220	-.04500	.05360	.00972
.100	22.000	1.30000	.40000	.09200	1.27600	-.02597	.00000	.04220	-.04500	.05360	.00944
.100	24.000	1.50000	.50000	.09200	1.30000	-.03000	.00000	.04220	-.04500	.05360	.00916
.100	GRADIENT	.04960	-.01702	.01000	.01000	-.00149	.00000	.00000	-.00000	.00000	.00000



00-731,2423 BX 010690W1J5612WZ18V5X10-C

(R00271) ( 24 JUN 73 )

**REFERENCE DATA**

3000 = 4,4119 INCHES  
 3500 = 19,2999 INCHES  
 4000 = 37,3349 INCHES  
 SCALE = 5000 SCALE

### PARAMETRIC DATA

BETA	=	.000	0. PLAP	=	-10.000
RUGGER	=	.000	CP-POS	=	7.200
ELEAN	=	-20.000	ALUMIN	=	.000
NUCLAL	=	.000	LTA	=	4.000

RUN NO. 271 /  $\text{RMSE} = 1.17$  GRADIENT INTERVAL =  $-9.50 / 9.50$

Year	ALPHA	Q	COF	QJM	ON	CAP	QJM	YAL	CY	FCPL	CAD
1980	-4.126	-3.99010	.11610	.10470	-.53740	.07975	.00195	.01390	.00000	.78150	.01339
1981	-2.295	-4.34440	.07980	.10090	.07871	.08895	.00095	.00350	.00000	.81310	.01374
1982	1.170	-.58900	.09150	.10560	-.58490	.08330	.00000	.00350	-.00100	.81310	.01448
1983	1.185	-.55260	.08550	.10690	-.53970	.08450	.00060	.00320	-.00200	.81310	.01447
1984	1.840	-.28270	.07910	.10540	-.26150	.08337	.00070	.00000	-.00100	.81310	.01437
1985	1.990	-.25870	.07560	.10720	-.22810	.08134	.00070	.00000	-.00100	.81440	.01410
1986	1.990	-.25710	.06500	.10540	-.13220	.07497	.00070	-.00020	-.00200	.81440	.01369
1987	5.516	-.04140	.08170	.10120	-.04404	.08080	.00090	.00000	-.00000	.81440	.01447
1988	-2.170	.06590	.06590	.10410	.07150	.07551	.00060	.00020	-.00000	.81490	.01490
1989	11.070	.16470	.07390	.12000	.17520	.04357	.00060	-.00000	-.00200	.80870	.01445
1990	12.100	.26550	.06050	.19050	.27620	.03909	.00050	-.00000	-.00200	.41010	.01425
1991	14.300	.37750	.11240	.19470	.53150	.01543	.00040	-.00000	-.00000	.48150	.01609
1992	14.450	.40750	.14700	.19000	.56410	.00669	.00040	.00000	-.00000	.52450	.01669
1993	18.350	.71190	.25470	.18320	.63250	.00400	.00000	-.00000	-.00000	.55000	.01653
1994	20.620	.91040	.29470	.17400	.74570	.00150	.00020	-.00000	-.00000	.57550	.01390
1995	22.700	.98660	.32410	.17450	.84350	-.00000	.00010	-.00240	-.00000	.58620	.02105
1996	24.700	.99400	.38400	.15000	.94250	-.00107	.00020	-.00000	-.00000	.59350	.02291
1997	24.700	.94140	.38654	.09917	.74096	-.00013	-.00000	-.00000	-.00000	.58244	.01921



DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

(RDN272) ( 24 JUN 73 )

NR.701.0405 ORB 816C50771J3G12487E18VSX10\*CP

REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LRDF = 19.2999 INCHES YREF = .0000 INCHES  
 BRDF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = 0405 SCALE

BETA =  
 RUDDER =  
 ELEVON =  
 NAC/L =

B.FLAP = -18.000  
 GP-POS = 7.780  
 AIRLON = .000  
 LIP = 4.000

PARAMETRIC DATA

RUN NO. 272/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-3.690	.16960	.06890	-.12220	.16490	.08031	.00100	-.00050	.00000	.92680	.02304
.160	-1.790	.27440	.07350	-.12440	.27200	.08208	.00110	-.00050	.00200	.82410	.02237
.160	-.760	.32340	.07710	-.12620	.32240	.08145	.00090	-.00040	.00200	.80050	.02242
.160	.270	.36980	.08100	-.12530	.37020	.07928	.00100	-.00050	.00200	.78150	.02159
.160	1.280	.41520	.08570	-.12540	.41700	.07641	.00090	-.00050	.00300	.76790	.02133
.160	2.310	.45220	.09180	-.12510	.46560	.07313	.00090	-.00060	.00300	.75640	.02102
.160	4.390	.54970	.10360	-.12400	.53610	.06312	.00080	-.00080	.00400	.74000	.02008
.160	6.470	.64050	.12540	-.12610	.63870	.05150	.00090	-.00120	.00500	.72870	.01992
.160	8.560	.75590	.15540	-.13300	.78050	.03969	.00000	-.00040	.00600	.72110	.02018
.160	10.640	.87340	.18950	-.13430	.86340	.02501	.00010	-.00000	.00400	.71390	.02032
.160	12.710	.96860	.22800	-.13420	.95500	.00827	.00010	-.00000	.00400	.70840	.02018
.160	14.810	1.07830	.28030	-.13530	1.11420	-.00467	.00190	-.00110	.00000	.70350	.02117
.160	16.870	1.16400	.36390	-.13960	1.21960	.01029	.00390	.00670	-.00900	.70100	.02615
.160	18.940	1.25290	.45530	-.14660	1.33280	.02351	.00080	-.00120	.00700	.69940	.03269
.160	21.020	1.31220	.53100	-.13860	1.41540	.02482	.00090	-.00170	.02800	.69510	.03798
.160	23.090	1.34160	.58910	-.11710	1.46520	.01639	.00230	-.00160	.00300	.68860	.04347
.160	25.090	1.32180	.62690	-.07830	1.46290	.00816	.00020	.00080	.00300	.67920	.03263
GRADIENT		.04585	.00443	-.00018	.04724	-.00211	-.00003	-.00073	.00044	-.02112	-.00036

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 ORB B16C507F1J5612-87E18V5X10-GP

(R0N273) ( 24 JUN 73 )

## REFERENCE DATA

SRDF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRFF = 37.9349 INCHES ZRRP = 16.2006 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .0000 9-FLAP = -19.0000  
 RUDDER = .0000 GP-POS = 7.80  
 ELEVON = 5.0000 AIRLON = .0000  
 NACK/L = .0000 LIP = 4.0000

RUN NO. 273/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CL	CLF	CLM	CN	CAF	CLN	CSL	CV	XCP/L	CAB
.160	-4.020	.06200	-.03000	-.03490	.05970	.00090	-.00140	.00000	.35060	.02049
.160	-1.920	.05970	-.03170	.07410	.06224	.06100	-.00130	.00000	.81350	.02025
.160	-.910	.06010	-.03200	.12550	.06220	.00100	-.00140	.00000	.75160	.01961
.160	.120	.06150	-.03340	.17690	.06113	.00100	-.00140	.00100	.72770	.01948
.160	1.160	.06360	-.03470	.23050	.05900	.00090	-.00160	.00100	.71410	.01941
.160	2.200	.06630	-.03560	.28110	.05553	.00090	-.00160	.00200	.70540	.01883
.160	4.260	.07480	-.03730	.38160	.04656	.00080	-.00180	.00300	.69500	.01853
.160	6.310	.08600	-.03940	.48200	.03519	.00060	-.00180	.00300	.68930	.01816
.160	8.410	.10870	-.04060	.58580	.02318	.00040	-.00190	.00300	.68480	.01791
.160	10.500	.13550	-.04210	.69760	.00853	.00020	-.00140	.00300	.68160	.01851
.160	12.600	.16950	-.04280	.81190	-.00784	.00000	-.00150	.00300	.67890	.01921
.160	14.670	.21150	-.04600	.92540	-.02362	.00110	-.00180	.00800	.67780	.02053
.160	16.770	.27960	-.04650	1.06360	-.02846	.00510	-.00120	-.00800	.67900	.02353
.160	18.890	.37290	-.06730	1.17700	-.00790	.00180	-.00060	.00000	.68030	.02906
.160	20.930	.45050	-.06880	1.27840	-.00662	.00160	-.00290	.00500	.67930	.03320
.160	22.980	.51730	-.05720	1.35120	-.01115	.00200	-.00100	.00000	.67520	.03851
.160	25.030	.56190	-.03620	1.36240	-.01627	.00030	-.00020	.00000	.66950	.04469
.160	.04925	.00156	-.00091	.05031	-.00159	-.00002	-.00006	.00030	.02601	-.00026

GRADIENT

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-HAAL 701

(RDC274) ( 24 JUN 73 )

NR.701.0405 ORB B16C507F1J5612487V9X10+GP

REFERENCE DATA

SREF = 4.4119 54.47. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA =  
 RUDDER =  
 ELEVON =  
 NACX/L =

PARAMETRIC DATA

RUN NO. 274/ 0 RV/L = 1.17 GRADIENT INTERVAL = -3.00/ 5.00

MACI	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.080	-1.4830	.06310	.02000	-1.1280	.05436	.00110	-.00130	-.00100	.70710	.01914
.160	-2.000	-.04090	.05930	.01860	-.04290	.05783	.00110	-.00110	-.00200	.81600	.01875
.160	-.960	.01160	.05810	.01830	.01080	.05835	.00120	-.00100	-.00100	.05390	.01861
.160	.070	.06400	.05790	.01790	.06400	.05790	.00120	-.00100	-.00200	.96180	.01824
.160	1.100	.11410	.05790	.01660	.11520	.05532	.00120	-.00110	-.00100	.62820	.01795
.160	2.160	.18710	.05900	.01570	.16920	.05265	.00120	-.00100	.00000	.62560	.01790
.160	4.220	.26390	.06390	.01280	.26990	.04419	.00090	-.00120	.00000	.64280	.01724
.160	6.300	.36960	.07580	.01010	.37540	.03275	.00070	-.00100	.00000	.65020	.01710
.160	8.380	.47090	.09060	.00910	.47910	.02101	.00020	-.00080	.00000	.65310	.01700
.160	10.460	.57970	.11440	.00700	.59090	.00727	.00020	-.00080	.00000	.65570	.01749
.160	12.540	.69030	.14410	.00620	.70510	-.00994	.00020	-.00100	.00200	.65670	.01809
.160	14.640	.79750	.18160	.00390	.81750	-.02384	.00090	-.00130	.00000	.65840	.01964
.160	16.720	.91960	.24340	-.00560	.95080	-.03158	.00610	-.00100	-.01000	.66210	.02183
.160	18.810	1.02180	.33090	-.01740	1.07400	-.01633	.00140	-.00010	.00000	.66580	.02668
.160	20.870	1.10740	.40440	-.02120	1.17880	-.01678	.00190	-.00270	.00400	.66640	.02958
.160	22.950	1.16030	.46910	-.01590	1.25140	-.02058	.00340	-.00230	-.00100	.66450	.03403
.160	24.990	1.21070	.53610	-.00460	1.32380	-.02561	.00030	.00020	-.00200	.66120	.04217
GRADIENT	.04993	.00014	-.00014	-.00083	.05093	-.00124	-.00001	.00001	.00018	-.00192	-.00023

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.9405 ORB 816C507F1J5G1E4B7V5X1D+GP

(RDNC275) ( 24 JUN 75 )

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 7.780  
 ELEVON = .000 AILEON = .000  
 NACX/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZMRP = 18.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 275/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.030	-1.1528	.06990	.01790	-1.15720	.03891	.00120	-.00130	.00000	.70080	.01921
.160	-2.020	-.04720	.06290	.01710	-.04940	.06128	.00120	-.00120	-.00100	.78430	.01895
.160	-.970	.00960	.06120	.01670	.06860	.06143	.00140	-.00110	-.00100	-.01600	.01857
.170	.000	.06270	.05970	.01690	.06280	.05967	.00130	-.00120	-.00100	.95560	.01828
.180	1.100	.11430	.05970	.01550	.11350	.05750	.00140	-.00120	-.00100	.61170	.01848
.190	2.130	.16380	.06010	.01470	.16800	.05392	.00120	-.00120	-.00100	.62840	.01767
.200	4.270	.20700	.06390	.01310	.27100	.04424	.00100	-.00110	.00000	.64260	.01729
.210	6.280	.36930	.07360	.01120	.37310	.03277	.00090	-.00120	.00000	.64920	.01630
.220	8.360	.47830	.09160	.01000	.48660	.02115	.00080	-.00090	.00000	.65250	.01752
.230	10.450	.53140	.11560	.00930	.59270	.00823	.00030	-.00030	.00000	.65430	.01743
.240	12.540	.68620	.14580	.00990	.70180	-.00673	.00020	-.00080	.00000	.65480	.01822
.250	14.610	.79720	.18560	.01020	.81820	-.02155	.00060	-.00060	.00000	.65550	.02000
.260	16.690	.91130	.23890	.00420	.94150	-.03295	.00300	-.00150	-.001500	.65830	.02218
.270	18.790	1.01450	.32910	-.00780	1.06650	-.01524	-.00030	-.00410	.00000	.66260	.02636
.280	20.850	1.08000	.39410	-.00050	1.14930	-.01611	.00140	-.00230	.00000	.66010	.02994
.290	22.910	1.13600	.46210	.00660	1.22630	-.01676	.00370	-.00230	-.00100	.65800	.03618
.300	24.940	1.13520	.51040	.02170	1.24460	-.01594	.00180	-.00260	.00000	.65370	.04343
GRADIENT		.05080	-.00072	-.00058	.05184	-.00178	-.00002	.00002	.00000	.00226	-.00024

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

PAGE 193

NR.701.0403 ORB B16C507F1J5G12MATE18V3X10+GP

(RDNR76) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.9999 INCHES YMRP = .0000 INCHES  
 BRF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 7.760  
 ELEVON = -20.000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 276/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	KCP/L	CAB
.160	-4.390	-.55950	.12420	.18830	-.56730	.08105	.00050	-.00050	.00000	.77900	.01979
.160	-2.310	-.45960	.10470	.19060	-.46350	.08611	.00060	-.00130	-.00100	.80750	.01474
.160	-1.240	-.40670	.09370	.19090	-.40870	.08691	.00080	-.00120	-.00100	.82760	.01463
.160	-.220	-.35560	.08960	.19040	-.35590	.09720	.00080	-.00130	-.00200	.85200	.01445
.160	.810	-.30170	.08140	.18910	-.30050	.08576	.00080	-.00130	-.00200	.86580	.01427
.160	1.850	-.25080	.07540	.18950	-.24830	.08349	.00090	-.00150	-.00200	.93390	.01426
.160	3.910	-.14500	.06630	.18710	-.14020	.07608	.00090	-.00110	-.00300	1.13900	.01355
.160	5.980	-.04310	.06330	.18740	-.03630	.06747	.00100	-.00080	-.00400	2.51160	.01372
.160	6.080	.06310	.06450	.18930	.07160	.05505	.00070	-.00050	-.00300	-.28860	.01519
.160	10.160	.16040	.07450	.19340	.17110	.04509	.00070	-.00050	-.00300	.25430	.01403
.160	12.230	.26090	.09000	.19850	.27410	.03264	.00050	-.00060	-.00300	.40000	.01463
.160	14.310	.36510	.11250	.20070	.38160	.01883	.00050	-.00070	-.00100	.47120	.01573
.160	16.410	.47930	.14570	.19990	.50100	.00436	.00110	-.00090	-.00400	.51680	.01740
.160	18.510	.60400	.21670	.18000	.64160	.01371	.00040	-.00090	-.00100	.55930	.01889
.160	20.590	.69740	.26700	.18150	.74680	.00464	-.00030	-.00250	.00300	.57270	.02010
.160	22.650	.76880	.32020	.18030	.83280	-.00062	.00170	-.00200	.00000	.58220	.02412
.160	24.690	.81160	.37480	.17480	.89400	.00140	.00330	-.00350	.00200	.58980	.03030
.160	GRADIENT	.09005	-.00699	-.00020	.05157	-.00760	.00005	-.00007	-.00034	.04013	-.00024

NR.701.0405 ORB B16C507F1J5612UBTE10V5X10+GP

(RD277) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 CP-POS = 7.760  
 ELEVON = 15.000 AIRRON = .000  
 NACA/L = .000 LTP = 4.000

RUN NO. 277/ 0 RVAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-3.900	.15930	.07220	-.11950	.15400	.08292	.00100	-.00020	.00100	.93840	.02326
.160	-1.830	.26050	.07520	-.12050	.25840	.08352	.00100	-.00010	.00100	.82740	.02272
.160	-.760	.31580	.07790	-.12130	.31270	.08220	.00110	.00000	.00200	.79920	.02256
.160	.240	.36010	.08080	-.12030	.36050	.07924	.00100	.00000	.00100	.77980	.02171
.160	1.290	.40850	.08510	-.11990	.41030	.07599	.00100	.00010	.00100	.76480	.02171
.160	2.310	.45380	.09000	-.11900	.45700	.07168	.00090	-.00020	.00370	.75340	.02083
.160	4.360	.54260	.10340	-.11830	.54890	.06184	.00070	-.00080	.00100	.73730	.02021
.160	6.430	.64730	.12480	-.12210	.65790	.03125	.00070	.00010	.00300	.72650	.01997
.160	8.520	.76170	.15560	-.12570	.77630	.04091	.00050	-.00110	.00400	.71810	.02018
.160	10.600	.86140	.18920	-.12530	.86150	.02737	.00060	-.00150	.00400	.71100	.02056
.160	12.710	.95770	.22930	-.12270	.98470	.01291	.00010	-.00120	.00500	.70470	.02072
.160	14.790	1.06130	.28070	-.12080	1.09780	.00738	.00060	-.00260	.00400	.69940	.02199
.160	16.850	1.15540	.36760	-.12870	1.21030	.01009	-.00260	-.00870	.01800	.69810	.02578
.160	18.930	1.22390	.44110	-.12410	1.30080	.02014	-.00200	-.00210	.01400	.69420	.03148
.160	20.970	1.26480	.50970	-.10970	1.36350	.02311	-.00020	-.00110	.01000	.68880	.03715
.160	22.990	1.28750	.56700	-.09280	1.40670	.01900	.00060	.00150	.00100	.68360	.04147
.160	25.010	1.25750	.59670	-.05610	1.39190	.00904	.00590	-.00610	.00500	.67440	.05128
	GRADIENT	.04642	.00372	.00021	.04782	-.00263	-.00004	-.00006	.00025	-.02277	-.02039

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 ORB 816C507F1J5C12W87E19V5X10+GP

(RDN278) ( 24 JUN 75 )

PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDOR = .000 GP-POS = 7.780  
 ELEVON = 5.000 AILRON = .000  
 NACKVL = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 278/ 0 RNVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLN	CLM	CLN	CAF	CSL	CY	XCP/L	CAB
.160	-4.030	-.03920	.06720	-.03110	-.04360	.00100	.06430	-.00130	.00000	.40500	.02089
.160	-1.960	.06620	.06310	-.03160	.06400	.00110	.06541	-.00120	.00000	.63760	.02024
.160	-.920	.12190	.06310	-.03220	.12090	.00120	.06513	-.00120	.00000	.75570	.01999
.160	.110	.17310	.06340	-.03310	.17320	.00110	.06310	-.00120	.00100	.72860	.01961
.160	1.140	.22670	.06510	-.03380	.22680	.00110	.06036	-.00110	.00000	.71330	.01963
.160	2.180	.27590	.06720	-.03480	.27630	.00110	.05671	-.00120	.00100	.70490	.01905
.160	4.250	.37560	.07520	-.03570	.38030	.00090	.04715	-.00150	.00200	.69370	.01871
.160	6.310	.47330	.08770	-.03767	.48010	.00080	.03515	-.00160	.00200	.68820	.01810
.160	8.410	.58310	.11030	-.04010	.59300	.00070	.02383	-.00100	.00200	.68430	.01827
.160	10.490	.69070	.13900	-.03970	.70450	.00040	.01089	-.00120	.00300	.68020	.01908
.160	12.570	.78450	.17030	-.03730	.80280	.00010	-.00431	-.00160	.00400	.67660	.01896
.160	14.660	.89510	.21380	-.03630	.92000	.00000	-.01979	-.00130	.00400	.67410	.02053
.160	16.730	1.00300	.27140	-.04330	1.03860	.00490	-.02881	-.00200	-.00500	.67490	.02287
.160	18.830	1.09900	.36320	-.05240	1.15750	-.00150	-.01101	-.00620	.01400	.67620	.02842
.160	20.880	1.15450	.43110	-.04290	1.23240	.00080	-.00880	-.00290	.00800	.67240	.03362
.160	22.920	1.19700	.49770	-.03470	1.29630	.00230	-.00773	-.00240	.00300	.66960	.03859
.160	24.930	1.22277	.54630	-.01370	1.31810	.00320	-.01039	-.00570	.00300	.66370	.04376
GRADIENT		.05026	.00097	-.00061	.05136	-.00001	-.00208	-.00002	.00023	.01950	-.00026

NR.701.0405 ORB B16C507F1J5612467E18V5X10+GP

(RDN279) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 34.FT. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -15.000  
RUDDER = .000 GP-POS = 7.780  
ELEVON = .000 AIRLON = 10.000  
NACK/L = .000 LIP = 4.000

RUN NO. 279/ 0 RNVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	QL	QDF	QLM	QN	CAF	CLN	CSL	CY	XCP/L	CAB
.180	-4.090	-1.14720	.07830	.01630	-.15240	.06756	.01040	.03630	-.02900	.69330	.02020
.180	-1.990	-.03710	.07140	.01570	-.03960	.07014	.01000	.03720	-.03400	.80230	.01937
.160	-.522	.01410	.07000	.01580	.01290	.07026	.00970	.03790	-.03600	.21950	.01960
.160	.080	.06730	.06830	.01460	.06740	.06822	.00910	.03810	-.03700	.58170	.01927
.160	1.110	.11890	.06890	.01450	.12020	.06662	.00880	.03890	-.03800	.61650	.01896
.160	2.160	.16880	.06910	.01450	.17220	.06265	.00810	.03900	-.03800	.62970	.01855
.160	4.270	.26890	.07420	.01410	.27360	.05435	.00700	.04000	-.04100	.64140	.01799
.160	6.340	.47750	.08260	.01380	.37460	.04150	.00550	.04000	-.04200	.64670	.01746
.160	8.380	.67750	.10160	.01160	.48730	.03093	.00420	.04180	-.04500	.65140	.01818
.160	10.470	.87850	.12520	.01180	.59140	.01810	.00230	.04200	-.04800	.65280	.01803
.160	12.540	1.08160	.15520	.01310	.69910	.00352	.00080	.04210	-.04900	.65320	.01850
.160	14.630	1.2820	.19330	.01390	.81060	-.01164	-.00380	.04200	-.05100	.65380	.01929
.160	16.700	1.4840	.24120	.01090	.92030	-.02430	-.00140	.04020	-.05200	.65370	.02004
.160	18.780	1.6830	.33590	-.00220	1.04020	-.00139	-.00710	.03300	-.03400	.66070	.02434
.160	20.810	1.04990	.39180	.00580	1.12060	-.00686	-.00780	.02940	-.02800	.65810	.02806
.160	22.910	1.11240	.46200	.01380	1.20450	-.00761	-.00770	.02670	-.03100	.65580	.03459
.160	24.940	1.12330	.51170	.02570	1.23430	-.00963	-.00750	.02110	-.02100	.65250	.04134
.160	GRADIENT	.05015	-.00651	-.00029	.05135	-.00164	-.00042	.00045	-.00135	-.00407	-.00026



DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.DA05 ORB B16C507F1J5612M87E10V5X10+GP

(RDNR280) ( 24 JUN 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 YREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -10.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = .000 AIRCRN = 10.000  
 NACK/L = .000 LIP = 4.000

PARAMETRIC DATA

RUN NO. 280/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-.980	.01510	.08280	.04630	.00370	.08277	.00920	.04010	-.03300	2.80450	.02132
.100	.070	.05640	.07950	.04660	.05650	.07947	.00880	.04260	-.03400	.36370	.02103
.100	1.100	.11580	.07700	.04280	.11720	.07484	.00840	.04260	-.03500	.32890	.02030
.100	2.100	.17630	.07630	.03890	.18110	.06956	.00800	.04300	-.03800	.38280	.01995
.100	4.240	.29490	.07900	.03230	.29990	.05697	.00670	.04290	-.04000	.62120	.01913
.100	6.380	.41430	.08930	.02400	.42170	.04289	.00540	.04350	-.04400	.63950	.01877
.100	8.440	.52800	.10780	.01560	.53810	.02899	.00360	.04380	-.04500	.64950	.01831
.100	10.530	.64630	.13360	.01020	.65990	.01321	.00200	.04400	-.04800	.65440	.01845
.100	12.690	.75190	.16480	.00670	.76970	-.00382	.00000	.04310	-.04800	.65680	.01814
.100	14.720	.87000	.20690	.00250	.89450	-.01926	-.00150	.04190	-.04800	.65890	.01877
.100	16.800	.98380	.27940	-.01450	1.02260	-.01690	.00040	.04400	-.05400	.66500	.02010
.100	18.920	1.06710	.35620	-.01580	1.12490	-.00914	-.00770	.03310	-.02800	.66500	.02355
.100	20.940	1.13100	.42670	-.01230	1.20880	-.00581	-.00790	.02920	-.02900	.66360	.02765
.100	23.010	1.19140	.49250	-.00990	1.28920	-.01242	-.00790	.02860	-.03200	.66270	.03304
.100	25.040	1.19690	.54560	.00400	1.31530	-.01240	-.00580	.01340	-.00300	.65890	.04708
.100	GRADIENT	.05606	-.00067	-.00290	.05729	-.00500	-.00047	.00043	-.00142	-.29183	-.00043

NO. 701.0003 ORB 816030701J0612007104310400

(00000011) (24 JUN 73)

## REFERENCE DATA

2000 = 4.4119 INCHES  
 1000 = 19.2499 INCHES  
 500 = 37.4999 INCHES  
 250 = 74.9999 INCHES  
 125 = 149.9999 INCHES  
 62.5 = 299.9999 INCHES  
 31.25 = 599.9999 INCHES  
 15.625 = 1199.9999 INCHES  
 7.8125 = 2399.9999 INCHES  
 3.90625 = 4799.9999 INCHES  
 1.953125 = 9599.9999 INCHES  
 0.9765625 = 19199.9999 INCHES  
 0.48828125 = 38399.9999 INCHES  
 0.244140625 = 76799.9999 INCHES  
 0.1220703125 = 153599.9999 INCHES  
 0.06103515625 = 307199.9999 INCHES  
 0.030517578125 = 614399.9999 INCHES  
 0.0152587890625 = 1228799.9999 INCHES  
 0.00762939453125 = 2457599.9999 INCHES  
 0.003814697265625 = 4915199.9999 INCHES  
 0.0019073486328125 = 9830399.9999 INCHES  
 0.00095367431640625 = 19660799.9999 INCHES  
 0.000476837158203125 = 39321599.9999 INCHES  
 0.0002384185791015625 = 78643199.9999 INCHES  
 0.00011920928955078125 = 157286399.9999 INCHES  
 5.96496E-05 = 314572799.9999 INCHES  
 2.98248E-05 = 629145599.9999 INCHES  
 1.49124E-05 = 1258291199.9999 INCHES  
 7.4562E-06 = 2516582399.9999 INCHES  
 3.7281E-06 = 5033164799.9999 INCHES  
 1.86405E-06 = 10066329599.9999 INCHES  
 9.32025E-07 = 20132659199.9999 INCHES  
 4.660125E-07 = 40265318399.9999 INCHES  
 2.3300625E-07 = 80530636799.9999 INCHES  
 1.16503125E-07 = 161061273599.9999 INCHES  
 5.82515625E-08 = 322122547199.9999 INCHES  
 2.912578125E-08 = 644245094399.9999 INCHES  
 1.4562890625E-08 = 1288490188799.9999 INCHES  
 7.2814453125E-09 = 2576980377599.9999 INCHES  
 3.64072265625E-09 = 5153960755199.9999 INCHES  
 1.820361328125E-09 = 10307921510399.9999 INCHES  
 9.101806640625E-10 = 20615843020799.9999 INCHES  
 4.5509033203125E-10 = 41231686041599.9999 INCHES  
 2.27545166015625E-10 = 82463372083199.9999 INCHES  
 1.137725830078125E-10 = 164926744166399.9999 INCHES  
 5.688629150390625E-11 = 329853488332799.9999 INCHES  
 2.8443145751953125E-11 = 659706976665599.9999 INCHES  
 1.42215728759765625E-11 = 1319413953331199.9999 INCHES  
 7.11078643798828125E-12 = 2638827906662399.9999 INCHES  
 3.555393218994140625E-12 = 5277655813324799.9999 INCHES  
 1.7776966094970703125E-12 = 10555311626649599.9999 INCHES  
 8.8884830474853515625E-13 = 21110623253299199.9999 INCHES  
 4.44424152374267578125E-13 = 42221246506598399.9999 INCHES  
 2.222120761871337890625E-13 = 84442493013196799.9999 INCHES  
 1.1110603809356689453125E-13 = 168884986026393599.9999 INCHES  
 5.5553019046783447265625E-14 = 337769972052787199.9999 INCHES  
 2.77765095233917236328125E-14 = 675539944105574399.9999 INCHES  
 1.388825476169586181640625E-14 = 1351079888211148799.9999 INCHES  
 6.944127380847930908203125E-15 = 2702159776422297599.9999 INCHES  
 3.4720636904239654541015625E-15 = 5404319552844595199.9999 INCHES  
 1.73603184521198272705078125E-15 = 10808639105689190399.9999 INCHES  
 8.68015922605991363525390625E-16 = 21617278211378380799.9999 INCHES  
 4.340079613029956817626953125E-16 = 43234556422756761599.9999 INCHES  
 2.1700398065149784088134765625E-16 = 86469112845513523199.9999 INCHES  
 1.08501990325748920440673828125E-16 = 172938225691027046399.9999 INCHES  
 5.42509951628744602203369140625E-17 = 345876451382054092799.9999 INCHES  
 2.712549758143723011016845703125E-17 = 691752902764108185499.9999 INCHES  
 1.3562748790718615055084228515625E-17 = 138350580552821637099.9999 INCHES  
 6.78137439535930752754211142875E-18 = 276701161105643274199.9999 INCHES  
 3.390687197679653763771055714375E-18 = 553402322211286548399.9999 INCHES  
 1.6953435988398268818855278571875E-18 = 1106804644422573096799.9999 INCHES  
 8.4767179941991344094276392859375E-19 = 2213609288845146193599.9999 INCHES  
 4.23835899709956720471381964296875E-19 = 4427218577690292387199.9999 INCHES  
 2.119179498549783602356909821484375E-19 = 8854437155380584774399.9999 INCHES  
 1.0595897492748918011784549107421875E-19 = 17708874310761169548799.9999 INCHES  
 5.2979487463744590058922745537109375E-20 = 35417748621522339097599.9999 INCHES  
 2.64897437318722950294613727685546875E-20 = 70835497243044678195199.9999 INCHES  
 1.324487186593614751473068638427734375E-20 = 141670994486089356390399.9999 INCHES  
 6.622435932968073757365343192113671875E-21 = 283341988972178712780799.9999 INCHES  
 3.3112179664840368786826715960568359375E-21 = 566683977944357425561599.9999 INCHES  
 1.65560898324201843934133579802841796875E-21 = 1133367955888714851123199.9999 INCHES  
 8.27804491621009219670667899014208984375E-22 = 2266735911777429702246399.9999 INCHES  
 4.139022458105046098353339495071044921875E-22 = 4533471823554859404492799.9999 INCHES  
 2.0695112290525230491766697475355224609375E-22 = 9066943647109718808985599.9999 INCHES  
 1.03475561452626152458833487376776123046875E-22 = 18133887294219437617971199.9999 INCHES  
 5.17377807263130762294167236883880615234375E-23 = 36267774588438875235942399.9999 INCHES  
 2.586889036315653811470836184419403076171875E-23 = 72535549176877750471884799.9999 INCHES  
 1.2934445181578269057354180922097015380859375E-23 = 145071098353755500943769599.9999 INCHES  
 6.4672225907891345286770904610485076904296875E-24 = 290142196707511001887539199.9999 INCHES  
 3.23361129539456726433854523052425384521484375E-24 = 580284393415022003775078399.9999 INCHES  
 1.616805647697283632169272615262126922607421875E-24 = 1160568786830044007550156799.9999 INCHES  
 8.084028238486418160846363076310634613037109375E-25 = 2321137573660088015100313599.9999 INCHES  
 4.0420141192432090804231815381553173065185546875E-25 = 4642275147320176030200627199.9999 INCHES  
 2.02100705962160454021159076907765865325927734375E-25 = 9284550294640352060401254399.9999 INCHES  
 1.010503529810802270105795384538829326629638671875E-25 = 18569100589280704120802508799.9999 INCHES  
 5.052517649054011350528976922694146633148193359375E-26 = 37138201178561408241605017599.9999 INCHES  
 2.5262588245270056752644884613470733165740966796875E-26 = 74276402357122816483210035199.9999 INCHES  
 1.26312941226350283763224423067353665828704833984375E-26 = 148552804714245632966420070399.9999 INCHES  
 6.31564706131751418816112215336768329143524167971875E-27 = 297105609428491265932840140799.9999 INCHES  
 3.157823530658757094080561076683841645717620839859375E-27 = 594211218856982531865680281599.9999 INCHES  
 1.5789117653293785470402805383419208228588104199296875E-27 = 1188422437713965063731360563199.9999 INCHES  
 7.8945588266468927352014026917096041142940520996484375E-28 = 2376844875427930127462721126399.9999 INCHES  
 3.94727941332344636760070134585480205714702604982421875E-28 = 4753689750855860254925442252799.9999 INCHES  
 1.973639706661723183800350672927401028573513024912109375E-28 = 9507379501711720509850884505599.9999 INCHES  
 9.86819853330861591900175336463700514286756512456046875E-29 = 19014759003423441019701769011199.9999 INCHES  
 4.934099266654307959500876682318502571433782562280234375E-29 = 38029518006846882039403538022399.9999 INCHES  
 2.4670496333271539797504383411592512857168912811401171875E-29 = 76059036013693764078807076044799.9999 INCHES  
 1.23352481666357698987521917057962564285844564057005859375E-29 = 152118072027387528157614152089599.9999 INCHES  
 6.16762408331788494937610955289812821429222820285029296875E-30 = 304236144054775056315228304179199.9999 INCHES  
 3.083812041658942474688054776449064107146114101425146484375E-30 = 608472288109550112630456608358399.9999 INCHES  
 1.5419060208294712373440273882245320535730570507125732421875E-30 = 1216944576219100225260913216716799.9999 INCHES  
 7.7095301041473561867201369411226602678652852535628662109375E-31 = 2433889152438200450521826433433599.9999 INCHES  
 3.85476505207367809336006847056133013393264262678143310546875E-31 = 4867778304876400901043652866867199.9999 INCHES  
 1.927382526036839046680034235280665066966321313390716552734375E-31 = 9735556609752801802087305733734399.9999 INCHES  
 9.636912630184195233400171176403325334831606566953582763671875E-32 = 19471113219505603604174611467468799.9999 INCHES  
 4.8184563150920976167000855882016626674158032834767913818359375E-32 = 38942226439011207208349222934937599.9999 INCHES  
 2.40922815754604880835004279410083133370790164173839569091796875E-32 = 77884452878022414416698445869875199.9999 INCHES  
 1.204614078773024404175021397050415666853950820869197845458984375E-32 = 155768905756044828833396891739750399.9999 INCHES  
 6.023070393865122020875106985252078334269754104345989227294921875E-33 = 311537811512089657666793783479500799.9999 INCHES  
 3.0115351969325610104375534926260391671348770521729946136474609375E-33 = 623075623024179315333587566959001599.9999 INCHES  
 1.50576759846628050521877674631301958356743852608649730682373046875E-33 = 1246151246048358630667175133918003199.9999 INCHES  
 7.52883799233140252609388373156509791783719263043248653411865234375E-34 = 2492302492096717261334350267836006399.9999 INCHES  
 3.764418996165701263046941865782548958918596315216243267059326171875E-34 = 4984604984193434522668700535672012799.9999 INCHES  
 1.8822094980828506315234709328912744794592981576081216335296630859375E-34 = 9969209968386869045337401071344025599.9999 INCHES  
 9.4110474904142531576173546644563723972964907880406081676483154296875E-35 = 19938419936773738090674802142688051199.9999 INCHES  
 4.70552374520712657880867733222818619864824539402030408382415771484375E-35 = 39876839873547476181349604285376102399.9999 INCHES  
 2.352761872603563289404338666114093099324122697010152041912078857421875E-35 = 79753679747094952362699208570752204799.9999 INCHES  
 1.1763809363017816447021693330570465496620613485050760209560394287109375E-35 = 159507359494189904725398417141504409599.9999 INCHES  
 5.8819046815089082235108466652852327483103067425253801047801971435546875E-36 = 319014718988379809450796834283008819199.9999 INCHES  
 2.94095234075445411175542333264261637415515337126269005239009857177734375E-36 = 638029437976759618901593668566017638399.9999 INCHES  
 1.470476170377227055877711666321308187077576685631345026195049285888671875E-36 = 127605887976759618901593668566017638399.9999 INCHES  
 7.352380851886135279388558333156540935387883428156725130975246429442871875E-37 = 255217753928259237804789171166035276799.9999 INCHES  
 3.6761904259430676396942791665782704676939417140783625654876232147214359375E-37 = 510435507856518475609578342332070553599.9999 INCHES  
 1.83809521297153381984713958328913523384697085703918128274381160736071796875E-37 = 1020871015713036951219156684664141107199.9999 INCHES  
 9.19047606485766909923569791644567616923485428519590641371905803680358984375E-38 = 2041742031426073902438313369328282214399.9999 INCHES  
 4.595238032428834549617848958222838084617427142597953206859529018401794921875E-38 = 4083484062852147804876626738656564428799.9999 INCHES  
 2.2976190162144172748089244791114190423087135712989766034297645092008974609375E-38 = 8166968125704295609753253477313128857599.9999 INCHES  
 1.14880950810720863740446223955570952115435685614948830171488225460044873046875E-38 = 1633393625140859121950650695462625771599.9999 INCHES  
 5.74404754053604318702231119777854760577178428074744150857441127300224365234375E-39 = 3266787250281718243901301390925251543199.9999 INCHES  
 2.872023770268021593511155598889273802885892140373720754287205636501121826171875E-39 = 6533574500563436487802602781850503086399.9999 INCHES  
 1.4360118851340107967555777994446369014429460701868603771436028182505610130859375E-39 = 13067149001126872975605205563701006172799.9999 INCHES  
 7.1800594256700539837778889972231845072147303509343018857180140912528050650859375E-40 = 26134298002253745951210411127402012345599.9999 INCHES  
 3.59002971283502699188894449861159225360736517546715094285900704562640253254296875E-40 = 52268596004507491902420822254804024691199.9999 INCHES  
 1.795014856417513495944472249305796126803682587733575471429503522813201266271484375E-40 = 104537192009014983804841644509608049382399.9999 INCHES  
 8.975074282087567479722361246528980634018412938667877357147517614066006331357421875E-41 = 209074384018029967609683289019216098764799.9999 INCHES  
 4.4875371410437837398611806232644903170092064693339386785737588070330031656787109375E-41 = 418148768036059935219366578038432197529599.9999 INCHES  
 2.24376857052189186993059031163224515850460323466696933928687940351650158283935546875E-41 = 836297536072119870438733156076864395059199.9999 INCHES  
 1.121884285260945934965295155816122579252301617333484669643439701758250791419677734375E-41 = 1672595072144239740877466312153728790118399.9999 INCHES  
 5.609421426304729674826475779080612896261508086667423348217198508791253957098388671875E-42 = 3345190144288479481754932624307457580236799.9999 INCHES  
 2.8047107131523648374132378895403064481307540433337116741085992543956269785491943359375E-42 = 6690380288576958963509865

REF. NO. 1. 2473 008 816C507F1J5612M07E10V5X1042

## PARAMETRIC DATA

BETA =	.000	B.FLAP =	-18.000
GRUDDER =	.000	GP-POS =	159.000
ELEVON =	15.000	AIRBOR =	.000
WACKVL =	.000	LIP =	4.000

## REFERENCE DATA

YARD =	4,419 30-PT.	YARD =	43,9974 INCHES
FOOT =	19,2999 INCHES	YARD =	.0000 INCHES
FEET =	37,9349 INCHES	YARD =	16,2000 INCHES
SCALE :	.0005 SCALE		

Variable	Mean	St. Dev.	Gradient	Interval
Intercept	1.17	1.17	-5.00	5.00

[illegible]



DATE 27 JUN 73 TABULATED SOURCE FORCE DATA-NAAL PSI

(RDN284) (24 JUN 73)

NR.701.0405 GAB B16C50771J101207V5310+CP

PARAMETRIC DATA

BETA = .000 B-FLAP = -10.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = .000 AIRLON = .000  
 MACX/L = .000 LIP = 4.000

REFERENCE DATA

WOP = 4.433 SQ.FT. WOP = 43.9974 INCHES  
 WOP = 19.0799 INCHES WOP = .0000 INCHES  
 WOP = 37.9559 INCHES WOP = 16.2950 INCHES  
 SCALE = .0005 SCALE

PLAN NO. 284/0 RN. = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CLN	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-1.960	-.00840	.07240	.05220	-.00980	.072 7	.00090	-.00190	.00000	2.60270	.02752
.100	-.000	.04350	.07020	.05150	.04350	.07025	.00120	-.00060	.00000	.23510	.01997
.100	1.100	.10710	.06720	.04710	.10840	.06512	.00120	-.000 0	-.00100	.50400	.01921
.100	2.1 0	.16790	.06600	.04320	.17230	.05965	.00140	-.00090	-.00100	.56990	.01907
.100	4.020	.20710	.05840	.03320	.29430	.04689	.00120	-.00080	-.00100	.61940	.01791
.100	6.330	.41120	.07870	.04760	.41840	.03272	.00100	-.00090	.00000	.63870	.01777
.100	9.420	.52760	.09320	.04760	.53620	.01890	.00760	-.00140	.00100	.64800	.01714
.100	10.540	.65370	.12420	.01990	.66490	.07256	.00320	-.00140	.00200	.65400	.01744
.100	12.650	.76560	.15350	.01250	.77720	.01450	-.00030	-.00140	.00400	.65800	.01716
.100	14.720	.87620	.19920	-.01240	.90000	-.07052	-.00050	-.00160	.00300	.66790	.01820
.100	16.810	1.02300	.26230	-.01600	1.03600	-.03682	.00450	-.00170	-.00200	.66510	.02797
.100	18.910	1.16940	.35360	-.01790	1.14510	-.01832	-.00740	-.00140	.00800	.66740	.02531
.100	20.970	1.31480	.42900	-.02230	1.22350	-.01592	.00130	-.00320	.00700	.66650	.03706
.100	23.070	1.45950	.48620	-.01700	1.29500	-.02216	.00350	-.00550	.00500	.66480	.03507
.100	25.170	1.64190	.55500	-.00910	1.36010	-.02362	.00410	-.00720	.00700	.66210	.04437
.100	27.120	1.87060	-.01662	-.00379	.02630	-.016501	.00905	.07601	-.00022	-.25208	-.00040

NR. T01, C405 ORB B16C507F1J0612N07V5X10-GP

(R02023) ( 24 JUN 73 )

REFERENCE DATA

SREF = 4.4119 54. FT. 1000P = 45.5974 INCHES  
 LREF = 19.7999 INCHES 1000P = .0000 INCHES  
 DREF = 37.9349 INCHES 2000P = 16.2000 INCHES  
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 B. FLAP = -16.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = .000 AIRRON = .000  
 MACX/L = .490 LIP = 4.000

RUN NO. 283/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CTF	CLA	CM	CAF	FLN	CSL	CY	XCP/L	CAB
.160	-1.970	-1.00230	.07180	.04810	-.00380	.07176	.03100	-.00200	.00000	-1.11080	.01949
.160	.050	.04830	.06980	.04680	.04830	.06978	.00120	-.00090	.00000	.31260	.01942
.160	1.030	.10870	.06740	.04270	.11700	.06539	.00120	-.00100	.00000	.52040	.01680
.160	2.130	.16770	.06680	.03830	.17010	.06054	.00110	-.00110	.00000	.57910	.01636
.160	4.220	.26380	.06950	.02860	.29010	.04827	.00110	-.00110	.00000	.67450	.01747
.160	6.310	.40570	.08010	.01820	.41210	.03499	.00090	-.00120	.00000	.64410	.01709
.160	8.430	.72900	.09770	.01170	.53170	.01995	.00060	-.00120	.00000	.65200	.01676
.160	10.510	.63560	.12050	.00330	.64690	.00256	.00000	-.00120	.00000	.65810	.01648
.160	12.620	.74870	.15040	-.00370	.76390	-.01663	-.00030	-.00150	.00000	.66170	.01641
.160	14.690	.85030	.18720	-.00630	.86960	-.03446	.00000	-.00190	.00000	.66260	.01579
.160	16.780	.95930	.26270	-.01050	.97540	-.01986	.00340	.00610	-.01100	.66400	.01669
.160	18.810	.97760	.32860	-.00820	1.03130	-.00423	.00120	.00370	-.00500	.66280	.02315
.160	20.830	1.00780	.36570	-.00040	1.07910	.00165	.00110	.00170	-.00400	.66010	.02932
.160	22.900	1.04290	.43730	.00000	1.13050	-.00285	.00420	-.00190	-.00300	.65710	.03486
.160	24.960	1.06920	.49790	.01760	1.19760	-.00828	.00270	-.00356	.00000	.65460	.04564
GRADIENT		.05592	-.00046	-.00389	.05700	-.00463	.00001	.00011	.00000	.27054	-.00041

DATE 27 SEP 73

FACILITATED SOURCE FORCE DATA-NAAL 701

(R14286) ( 24 JUN 73 )

NR.701.0405 078 B16C507F1J8612487E18V8X10+6P

PARAMETRIC DATA

BETA = .000 B-FLAP = -10.000  
RUDDER = .000 GP-POS = 159.000  
ELEVON = -20.000 AIRLON = .000  
MACX/L = .490 L/P = 4.070

REFERENCE DATA

SRDF = 1.4119 SQ.FT. ZMRP = 43.5974 INCHES  
LREF = 19.2999 IN. IS ZMRP = 1000 INCHES  
BRDF = 37.9349 INCHES ZMRP = 16.2200 INCHES  
SCALE = .0403 SCALE

RUN NO. 286/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-1.240	-.29900	.11150	.20380	-.30140	.10504	.00070	-.01560	-.00600	.90260	.01827
.160	-1.290	-.36950	.10700	.23020	-.37000	.10514	.00080	.00030	.00000	.88320	.01807
.160	.740	-.31650	.09760	.22980	-.31530	.10182	.00090	.00000	-.00100	.92150	.01793
.160	1.000	-.25580	.08860	.22420	-.25280	.09691	.00100	-.00020	.00000	.97810	.01733
.160	3.870	-.14130	.07770	.21610	-.13370	.08710	.00100	-.00060	-.00200	1.23130	.01653
.160	5.980	-.02030	.07210	.21120	-.01260	.07383	.00110	-.00080	-.00400	3.27670	.01779
.160	8.060	.08450	.07330	.20930	.09400	.06075	.00080	-.00130	-.00300	-.13870	.01795
.160	10.160	.19220	.08170	.20690	.20360	.04649	.00090	-.00140	-.00300	.29000	.01798
.160	12.250	.30060	.09670	.20830	.31430	.03072	.00040	-.00130	-.00300	.42210	.01815
.160	14.320	.40670	.11720	.20670	.42310	.01293	.00060	-.00010	-.00400	.48470	.01760
.160	16.420	.51050	.16460	.19460	.53630	.01359	.00060	.00010	-.00000	.52970	.01744
.160	18.490	.60070	.21260	.18810	.63720	.01113	.00130	-.00020	-.00300	.55400	.01863
.160	20.600	.68330	.26370	.17720	.73240	.00640	.00350	.00010	-.00200	.57310	.02159
.160	22.650	.74540	.32440	.16640	.81290	.01290	.0065	-.00310	.00200	.58650	.02663
.160	24.700	.82050	.38260	.16060	.90530	.00471	.00340	-.00310	.00200	.59630	.03337
	GRADIENT	.03747	-.01688	.00082	.03903	-.00371	.00006	.00207	.00050	.06616	-.00035

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-HAL 701

(R00287) ( 24 14 73 )

NR. 701.0405 ORB B18C507F1J6612407E18V3X10+GP

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 94.17. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B. FLAP = -16.000  
 RUDDER = .000 CP-POS = 139.000  
 FLEVO = 5.000 AIRRON = .000  
 NACX/L = .490 LTP = 4.000

RUN NO. 287/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-.880	.11940	.07210	-.00840	.11830	.07402	.00100	-.00200	.00000	.68360	.02042
.160	.160	.17600	.07160	-.01140	.17620	.07119	.00100	-.00130	.00000	.68330	.02007
.160	1.190	.23330	.07210	-.01960	.23670	.06722	.00090	-.00140	.00100	.68370	.01955
.160	2.270	.29410	.07360	-.02040	.29670	.06212	.00090	-.00160	.00100	.68470	.01894
.160	4.330	.40820	.08020	-.02990	.41310	.04916	.00080	-.00180	.00000	.68590	.01802
.160	6.420	.62450	.09420	-.03900	.63170	.03494	.00070	-.00170	.00100	.68630	.01759
.160	8.500	.84570	.11470	-.04850	.84500	.01955	.00010	-.00180	.00100	.68690	.01717
.160	10.630	.75000	.14250	-.05320	.76360	.00160	.00000	-.00190	.00100	.68500	.01702
.160	12.700	.82800	.17500	-.05690	.87630	-.01812	-.00010	-.00250	.00100	.68310	.01702
.160	14.780	.93490	.21600	-.05720	.97840	-.03490	.00090	-.00350	.00200	.68080	.01678
.160	16.910	1.04460	.30970	-.05720	1.08030	-.03560	.00040	-.00310	.00300	.67900	.01806
.160	18.870	1.04630	.42070	-.05790	1.10840	.00779	.00040	.00330	-.00300	.67630	.02576
.160	20.920	1.05610	.47200	-.03790	1.14610	.01219	.00070	.00110	-.00470	.67180	.03228
.160	22.930	1.09900	.47200	-.02570	1.19610	.00645	.00370	.00070	-.00400	.66750	.03863
.160	25.000	1.14680	.53470	-.01150	1.26500	-.00065	.00230	-.00290	-.00100	.66320	.03056
.160	GRADIENT	.54562	.00159	-.00420	.05676	-.00483	-.00004	-.00001	.00004	.00021	-.00047



NR.701.0405 URB 816C507F1J6G12M7E18V5110+GP

(RDV288) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 90.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = 15.000 AIRLON = .000  
 MACX/L = .490 LIP = 4.000

RUN NO. 288/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	QDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-1.730	.33690	.08640	-1.11250	.33570	.09077	.00080	-1.00030	.00100	.76020	.02182
.160	.280	.36780	.08970	-1.11350	.36820	.08681	.00070	-1.00020	.00200	.76500	.02088
.160	1.320	.44000	.09280	-1.11500	.44200	.08268	.00070	-1.00040	.00300	.75370	.02066
.160	2.390	.48890	.09690	-1.11630	.49250	.07641	.00070	-1.00070	.00200	.74510	.01981
.160	4.440	.58600	.10680	-1.12180	.59260	.06314	.00050	-1.00070	.00200	.73360	.01866
.160	6.540	.71020	.12930	-1.13460	.72030	.04757	.00010	-1.00000	.00300	.72700	.01819
.160	8.630	.82590	.15810	-1.13690	.84030	.03231	.00000	-1.00040	.00400	.71970	.01776
.160	10.710	.93170	.19110	-1.14780	.93100	.01453	.00000	-1.00120	.00500	.71380	.01776
.160	12.840	1.02980	.23170	-1.14240	1.05560	-.00298	.00050	-1.00220	.00400	.70840	.01756
.160	14.880	1.11870	.27900	-1.13850	1.15290	-.01769	.00250	-1.00250	.00000	.70310	.01765
.160	16.930	1.19500	.33950	-1.12090	1.20960	.00760	.00450	.01590	-.02100	.69820	.02254
.160	18.950	1.11600	.42870	-1.06310	1.19450	.04229	-.00040	.00120	.00000	.69180	.03203
.160	20.930	1.14360	.48020	-.08970	1.23970	.03979	-.00040	.00400	-.00600	.68590	.03787
.160	22.990	1.18320	.53540	-.07090	1.29840	.03062	.00340	-.00170	-.00100	.68040	.04519
.160	25.070	1.21440	.59080	-.05270	1.35030	.02042	.00270	-.00410	.00300	.67400	.05652
GRADIENT		.04803	.00437	-.06176	.04954	-.00537	-.00005	-.00010	.00013	-.00879	-.00056

NR.701.0405 ORB B16C507E1J6G12W8TE18V5X10+GP

(RDN289) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 289/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = .000 AILRON = 10.000  
 NACX/L = .490 LIP = 4.000

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-1.970	.00860	.08070	.04400	.00730	.08083	.00670	.04090	-.03100	-1.50520	.02021
.160	.050	.06010	.07910	.04250	.06010	.07909	.00840	.04260	-.03200	.40600	.01953
.160	1.100	.12020	.07730	.03950	.12170	.07324	.00780	.04320	-.03300	.94350	.01917
.160	2.150	.17800	.07650	.03480	.18080	.06977	.00740	.04310	-.03600	.59080	.01888
.160	4.250	.29260	.08000	.02770	.29780	.05809	.00630	.04310	-.03900	.62650	.01802
.160	6.350	.40560	.08310	.01950	.41300	.04368	.00480	.04370	-.04300	.64300	.01762
.160	8.420	.51940	.10650	.01100	.52940	.02932	.00310	.04380	-.04500	.65250	.01736
.160	10.500	.63410	.12960	.00420	.64710	.01183	.00140	.04350	-.04700	.65760	.01728
.160	12.500	.74150	.15940	.00040	.75840	-.00622	-.00030	.04300	-.04800	.65970	.01689
.160	14.590	.83970	.19330	-.00020	.86180	-.02400	-.00160	.04130	-.04900	.66000	.01592
.160	16.810	.93490	.26650	-.00750	.97210	-.01527	-.00070	.04760	-.05700	.66270	.01845
.160	18.800	.96070	.33370	-.00110	1.01760	.00814	-.000750	.02730	-.02200	.66040	.02279
.160	20.890	.96370	.39790	.00750	1.07540	.01204	-.00650	.02120	-.01400	.65740	.02858
.160	22.890	1.00320	.43810	.01820	1.11950	.00291	-.00420	.01860	-.01300	.65410	.03411
.160	24.950	1.08180	.50330	.02300	1.19320	.00000	-.00640	.01290	.00000	.65290	.04631
GRADIENT	.03471	-.00018	-.00025	.05597	-.00448	-.00048	-.00047	.00035	-.00180	.31772	-.00040

NR.701.0405 ORB B16C507E1J6G12W8TE18V5X10+GP

(RDN290) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 290/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = .000 AILRON = 10.000  
 NACX/L = .000 LIP = 4.000

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	6.490	.37660	.11060	.01830	.58660	.02421	.00250	.04350	-.04100	.64870	.01909
.160	10.800	.69880	.13750	.01110	.71200	.00666	.00070	.04470	-.04100	.63430	.01854
.160	12.710	.81480	.17320	.00500	.83300	-.01046	-.00120	.04300	-.04200	.63780	.01782
.160	14.790	.92990	.21590	-.00080	.95420	-.02868	-.00290	.04050	-.03900	.66030	.01774
.160	16.900	1.05700	.28930	-.01710	1.09540	-.03055	-.00220	.04310	-.03900	.66560	.01954
.160	18.970	1.14740	.38220	-.02630	1.20930	-.01168	-.00610	.03270	-.02600	.66780	.02317
.160	21.060	1.22490	.44800	-.02490	1.30410	-.02222	-.00720	.03030	-.03100	.66680	.02738
.160	23.110	1.30360	.52660	-.03000	1.40360	-.00960	-.00960	.02732	-.02700	.66760	.03251
.160	25.140	1.30870	.58860	-.01870	1.43480	-.02326	-.00180	.03850	.00600	.6467	.04890
GRADIENT	.04628	.03034	-.00286	.05339	-.00239	-.00032	-.00032	-.00136	.00211	.00103	.00148

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C5D7F1J5G12W8TE18V5X10+GP

(RDN291) ( 24 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2959 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 GP-POS = 209.000  
ELEVON = 15.000 AILRON = .000  
MACX/L = .000 LIP = 4.000

RUN NO. 291/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CLM	CLN	CAF	CN	CLN	CSL	CY	XCP/L	CAB
.160	6.710	.68480	.18040	-.13590	.02451	.89890	.00020	-.00090	.00400	.71420	.01756
.160	10.840	.99290	.19770	-.13670	.00737	1.01240	.00000	-.00160	.00500	.70840	.01684
.160	12.910	1.09860	.24250	-.13740	-.07917	1.12500	.00000	-.00180	.00500	.70380	.01730
.160	14.990	1.20500	.30070	-.14030	-.02126	1.24180	.00260	-.00260	.00000	.70050	.01969
.160	17.070	1.30680	.39170	-.14380	-.07927	1.36420	.00130	-.00070	.00600	.69800	.02419
.160	19.150	1.37680	.47570	-.14480	-.00232	1.45670	.00050	-.00360	.01200	.69490	.02662
.160	21.280	1.45950	.56380	-.14410	-.00382	1.56460	.00140	-.00320	.00700	.69300	.02822
.160	23.290	1.48500	.62340	-.13160	-.00915	1.61290	.00300	-.00300	.02200	.68920	.03471
.160	25.270	1.43390	.67460	-.09920	-.00210	1.58470	.00990	.00190	-.07300	.68240	.05957
GRADIENT		.03676	.00117	.00102	-.00102	.04537	.00039	-.00011	-.00191	-.00170	.00200

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2959 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 15.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 GP-POS = 209.000  
ELEVON = 5.000 AILRON = .000  
MACX/L = .000 LIP = 4.000

RUN NO. 292/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CLM	CLN	CAF	CN	CLN	CSL	CY	XCP/L	CAB
.160	6.560	.69970	.11860	-.04320	.01292	.70960	.00000	-.00160	.00300	.68180	.01767
.160	10.650	.81980	.15060	-.04990	-.00356	.83360	-.00050	-.00190	.00500	.68150	.01715
.160	12.760	.93380	.18940	-.05420	-.02152	.95260	-.00090	-.00260	.00700	.68040	.01701
.160	14.870	1.05340	.24010	-.06170	-.03630	1.07970	.00080	-.00400	.00400	.68050	.01753
.160	16.970	1.17020	.31950	-.07460	-.03604	1.21250	.00420	.00010	.00000	.68200	.02144
.160	19.050	1.25510	.41480	-.08150	-.01759	1.32180	.00010	-.00290	.00900	.68210	.02557
.160	21.120	1.32660	.48500	-.07940	-.02556	1.41220	.00350	-.00500	.00700	.68010	.02984
.160	23.180	1.35790	.56750	-.07990	-.02875	1.50850	.00340	-.00500	.00700	.67900	.03396
.160	25.220	1.38400	.62400	-.06010	-.02538	1.51800	.00600	-.00740	.00300	.67420	.05020
GRADIENT		.04369	.03228	-.00183	-.00173	.05137	.00040	-.00037	.00009	-.00029	.00171

(RDN292) ( 24 JUN 75 )

NR.701.0405 ORB B16C5D7F1J5G12W8TE18V5X10+GP

PARAMETRIC DATA

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(RDN293) ( 24 JUN 73 )

NR.701.0405 ORB 816C507F1J5G12M87E18V5X10+GP

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = -20.000 ATLON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 293/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	8.150	.11940	.07780	.22900	.12920	.05994	.00010	-.00100	.00000	.02410	.02101
.100	10.290	.23140	.08660	.22940	.24320	.04386	.00040	-.00140	-.00200	.32140	.02038
.100	12.350	.33720	.10500	.23520	.35190	.03048	.00030	-.00170	-.00100	.42010	.01944
.100	14.460	.46650	.13470	.22690	.48530	.01393	.00000	-.00220	.00000	.49220	.01966
.100	16.550	.59950	.18520	.20280	.62750	.00676	.00490	-.00200	-.00800	.54400	.02063
.100	18.660	.73610	.25170	.18220	.77790	.00298	-.00050	-.00190	.00200	.57590	.02168
.100	20.760	.83960	.31700	.16690	.89750	-.00133	.00170	-.00270	.00100	.59320	.02336
.100	22.890	.92140	.37940	.15100	.99920	-.00935	.00320	-.00350	.00000	.60570	.03049
.100	24.910	1.01690	.45290	.13620	1.10580	-.01431	.00410	-.00350	.00500	.61510	.03801
GRADIENT		.03497	.02322	-.00620	.06011	-.00423	.00019	-.00021	.00025	.02903	.00089

(RDN294) ( 24 JUN 73 )

NR.701.0405 ORB 816C507F1J5G12M87V5X10+GP

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = .000 ATLON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 294/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	8.490	.56090	.10240	.01530	.58920	.01552	.00080	-.00160	.00000	.65060	.01783
.100	10.590	.70660	.12930	.00600	.71840	-.00269	.00010	-.00190	.00200	.69690	.01740
.100	12.700	.82640	.16540	-.00180	.84250	-.02027	-.00040	-.00200	.00600	.66080	.01713
.100	14.850	.95230	.21270	-.01130	.97500	-.03854	.00040	-.00300	.00200	.66410	.01775
.100	16.910	1.08220	.28860	-.02970	1.11940	-.03872	.00160	-.00090	.00200	.66950	.02037
.100	19.020	1.16910	.37910	-.03630	1.22880	-.02272	.00010	-.00240	.00600	.67060	.02516
.100	21.090	1.24440	.44690	-.03580	1.32180	-.03089	.00220	-.00390	.00500	.66970	.02896
.100	23.140	1.32070	.52590	-.04040	1.42110	-.03547	.00350	-.00670	.00400	.67020	.03433
.100	25.180	1.39720	.59070	-.03150	1.46140	-.03442	.00870	-.01240	.00100	.66770	.04689
GRADIENT		.04729	.03087	-.00335	.05435	-.00243	.00042	-.00048	.00041	.03106	.00158

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 CRB 816C507F1J9487V5X10+CP

(R0N295) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 295/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.160	4.280	.31930	.04700	.03230	.32200	.02304	.00280	-.00140	-.01500	.60160	.01940
.160	6.390	.45470	.06120	.03600	.45670	.01020	.00260	-.00140	-.01400	.63160	.01629
.160	8.510	.59310	.08500	.01540	.59920	-.00369	.00220	-.00100	-.01300	.65070	.01771
.160	10.600	.71830	.11610	.00360	.72740	-.01810	.00200	-.00080	-.01300	.65910	.01716
.160	12.710	.83760	.15430	-.00490	.85120	-.03390	.00210	-.00070	-.01300	.66200	.01689
.160	14.810	.95550	.20160	-.01610	.97530	-.04938	.00320	-.00190	-.01600	.66590	.01716
.160	16.920	1.09270	.26090	-.03730	1.12710	-.04939	.00400	.00070	-.01700	.67180	.01940
.160	17.140	1.47750	.26330	-.24490	-2.76410	-.32767	-.01720	-.01240	-.02000	.62610	.32767
.160	19.010	1.17630	.37290	-.04730	1.23550	-.03130	.00180	-.00220	-.00700	.67370	.02293
.160	21.090	1.26110	.44560	-.04430	1.33700	-.03785	.00440	-.00410	-.00700	.67210	.02693
.160	23.140	1.31690	.52020	-.04690	1.41540	-.03936	.00930	-.00670	-.01500	.67190	.03076
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

NR.701.0405 CRB 816C507F1J9487V5X10+CP

(R0N296) ( 24 JUN 73 )

RUN NO. 296/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.160	10.670	.77980	.12770	-.00030	.79000	-.01896	.00410	-.00070	-.03100	.66010	.01791
.160	12.760	.90450	.16900	-.01320	.91920	-.03629	.00380	-.00060	-.02900	.66510	.01729
.160	14.870	1.02980	.21660	-.02710	1.03140	-.05306	.00460	-.00120	-.03000	.66920	.01705
.160	17.000	1.15480	.29600	-.04230	1.19090	-.05449	.00600	-.00150	-.03000	.67280	.01912
.160	19.110	1.24730	.38210	-.05340	1.30370	-.04736	.00630	-.00210	-.02300	.67470	.02393
.160	21.150	1.33620	.46770	-.06520	1.41490	-.04592	.00980	-.00530	-.02800	.67650	.02681
.160	23.230	1.41880	.55600	-.07120	1.52310	-.04876	.01160	-.00570	-.03400	.67670	.03026
.160	25.230	1.43400	.62630	-.06980	1.56420	-.04328	.00630	-.00120	-.03600	.67600	.04721
GRADIENT		.04662	.03573	-.00115	.05505	-.00125	.00041	-.00024	-.00026	.00110	.00173

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB 816C507F1J5612487V5X10+GP

(RDN297) ( 24 JUN 73 )

REFERENCE DATA

SREF = 4.4119 50.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 GP-POS = 240.000  
ELEVON = .000 ATLON = .000  
NACK/L = .000 LIP = 4.000

PARAMETRIC DATA

RUN NO. 297/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	QDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	14.840	.98280	.22450	-.01670	1.00750	-.03485	.00180	-.00160	-.00200	.66590	.01783
.160	16.960	1.11580	.29950	-.03000	1.15460	-.03904	.00240	-.00220	-.00200	.66930	.02159
.160	19.030	1.22000	.36200	-.03990	1.27790	-.03675	.00290	-.00260	.00100	.67120	.02665
.160	21.140	1.30820	.46960	-.05490	1.38950	-.03388	.00680	-.00680	.00400	.67410	.03037
.160	23.210	1.39310	.55500	-.06290	1.49910	-.03914	.00440	-.00360	-.00300	.67500	.03553
.160	25.220	1.40310	.62180	-.06220	1.53430	-.03548	.00100	-.00190	-.00100	.67450	.05088
GRADIENT		.04159	.03904	-.00470	.05200	-.00001	.00009	-.00014	.00007	.00087	.00289

NR.701.0405 ORB 816C507F1J5612487E16V5X10+GP

(RDN298) ( 24 JUN 73 )

REFERENCE DATA

SREF = 4.4119 50.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 GP-POS = 240.000  
ELEVON = -.000 ATLON = .000  
NACK/L = .000 LIP = 4.000

PARAMETRIC DATA

RUN NO. 298/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	QDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	14.920	.54090	.13480	.20330	.55250	.01427	.00090	-.00030	-.00400	.52690	.02515
.160	16.630	.67290	.20630	.19180	.70380	.00514	.00490	-.00120	-.01100	.58210	.02514
.160	18.730	.79840	.27760	.17480	.84520	.00659	-.00010	-.00120	.00000	.58370	.02579
.160	20.840	.91300	.34450	.15200	.97590	-.00288	.00350	-.00100	-.00300	.60400	.03037
.160	22.910	1.00620	.41410	.11990	1.08990	-.01108	.00060	-.00170	-.00100	.62090	.03707
.160	25.030	1.11690	.50270	.09330	1.22470	-.01712	.00010	-.00160	.00000	.63200	.04142
GRADIENT		.05443	.03306	-.01073	.06239	-.00293	-.00018	-.00011	.00064	.00965	.00166

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TABULATED SOLUTION FORCE DATA-NAL 701

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NR. 701.0403 ORB 816C507F1J5G12A87E18V5X10+GP

(RDN299) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

RUN NO. 299/ 0 RNVL = 1.17 GRADIENT INTERVAL = -.5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 5.000 AILRON = .000  
 MACVL = .000 LIF = 4.000

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.900	1.0110	.25020	-.06370	1.09940	-.03371	.00180	-.00130	.00000	.68070	.01647
.160	17.010	1.19580	.32850	-.07360	1.23940	-.03565	.00090	-.00320	.00200	.68130	.02272
.160	19.090	1.29370	.41720	-.08370	1.35900	-.02893	.00350	-.00460	.00700	.68260	.02697
.160	21.210	1.40100	.51330	-.09880	1.49180	-.02834	.00470	-.00570	.00700	.68400	.02856
.160	23.290	1.45720	.59310	-.10020	1.57300	-.03048	.00210	-.00090	.00500	.68280	.03456
.160	25.270	1.44470	.65430	-.09170	1.59380	-.02524	.00040	-.00300	.00250	.68070	.05480
GRADIENT		.03806	.04005	-.00323	.04914	.00080	-.00001	-.00007	-.00021	.00006	.00300

NR. 701.0403 ORB 816C507F1J5G12A87E18V5X10+GP

(RDN500) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

RUN NO. 500/ 0 RNVL = 1.17 GRADIENT INTERVAL = -.5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 15.000 AILRON = .000  
 MACVL = .000 LIF = 4.000

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.900	1.09030	.20170	-.12450	1.22780	-.01661	.00180	-.00290	.00000	.69630	.02147
.160	17.080	1.30000	.36680	-.13220	1.35630	.01205	.00030	-.00320	.00670	.69490	.02403
.160	19.180	1.41310	.49140	-.14850	1.50180	-.00224	.00130	-.00390	.00500	.69540	.02272
.160	21.270	1.50060	.57560	-.14830	1.60720	-.00800	.00110	-.00210	.00200	.69310	.02453
.160	23.300	1.50300	.64280	-.13820	1.63650	-.00506	.00290	-.00340	.00000	.69030	.03979
.160	25.280	1.49900	.70560	-.12960	1.65310	-.00063	.00100	-.00340	.00500	.68810	.06301
GRADIENT		.03091	.03983	-.00062	.04272	.00132	.00005	-.00005	-.00005	-.00079	.00360

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAAL 701

(RDN001) ( 24 JUN 75 )

NR.701.0405 ORB 816C5D7F1J5F12M87E18V5X10+GP

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 301/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.820	.94980	.22510	.00070	.97560	-.02537	-.00230	.03670	-.03400	.65970	.01795
.160	16.940	1.06880	.30440	-.01590	1.13030	-.02608	-.00270	.03550	-.03100	.66490	.02135
.180	19.090	1.18820	.38430	-.02640	1.24860	-.02413	-.00530	.03190	-.02700	.66750	.02525
.180	21.140	1.28690	.46930	-.04320	1.37150	-.02714	-.01170	.03130	-.03500	.67130	.03130
.180	23.180	1.35490	.54920	-.05170	1.46170	-.02863	-.01370	.02930	-.03100	.67270	.03840
.180	25.190	1.37360	.62110	-.04910	1.50740	-.02279	-.00670	.00990	-.00900	.67170	.05130
GRADIENT		.04163	.03692	-.00517	.05203	.00003	-.00085	-.00223	.00282	.00120	.00307

PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = 10.000  
 NACK/L = .000 LIP = 4.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 302/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.860	.99770	.25490	.00360	1.02970	-.00939	-.00340	.03460	-.02700	.65860	.02015
.160	16.950	1.07850	.31000	.00290	1.12010	-.01696	-.00480	.02780	-.01700	.65900	.02425
.180	18.960	1.14150	.37170	-.00020	1.20030	-.01991	-.00410	.02310	-.01300	.66000	.03137
.180	21.090	1.20070	.44890	-.01620	1.28180	-.02247	-.00120	.02280	-.02100	.66450	.03851
.180	23.110	1.26240	.52690	-.03130	1.36870	-.00924	-.00420	.02100	-.02200	.66820	.04497
.180	25.180	1.33600	.61230	.04250	1.46960	-.01440	-.01040	.01700	-.01500	.67030	.05174
GRADIENT		.03197	.03491	-.00465	.04192	.00009	-.00042	-.00151	.00051	.00125	.00315

PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = 10.000  
 NACK/L = .000 LIP = 4.000

(RDN002) ( 24 JUN 75 )



NR.701.1.0405 ORB B16C507F1J7612M87E18V5X10+GP

(RND003) ( 24 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = -20.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 303/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLN	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	14.500	.61140	.19100	.19260	.53980	.03069	-.00060	-.00150	-.00300	.35190	.02499
.160	16.670	.72040	.23470	.18770	.73740	.01820	-.00060	-.00200	-.00100	.37100	.02627
.160	18.770	.81990	.28500	.17710	.86600	.00597	-.00340	-.00330	.00000	.36670	.02827
.160	20.840	.90340	.34790	.14830	.96610	.00363	.00320	-.00440	-.00100	.60490	.03469
.160	22.910	.97640	.41810	.11920	1.06400	.01416	.00590	-.00330	-.00300	.61970	.04077
.160	25.000	1.02450	.48960	.08670	1.17170	-.00618	.00280	-.00140	-.00200	.63030	.04552
GRADIENT	.04265	.02889	-.00979	.03028	-.00316	.00036	-.00036	-.00006	.00011	-.00763	.00209

NR.701.0405 ORB B16C507F1J7612M87E18V5X10+GP

(RND004) ( 24 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = 15.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 304/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLN	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	15.020	1.20770	.31640	-.10700	.27440	-.00742	-.00130	-.00120	.00306	.69070	.02165
.160	17.050	1.26170	.37870	-.10060	.13170	.00304	-.00010	-.00210	.00500	.58740	.02204
.160	19.130	1.30630	.45090	-.10290	.138100	-.00186	.00120	.00140	-.00900	.68670	.04034
.160	21.190	1.36370	.54040	-.11360	.146590	.01116	.00630	.00060	-.01100	.68730	.04207
.160	23.240	1.41810	.62170	-.12130	.154840	.01156	.00360	.00440	-.01700	.68810	.05116
.160	25.300	1.46900	.70540	-.12410	.162100	.01081	.00110	.00770	-.00200	.68740	.06327
GRADIENT	.02490	.02490	.02490	-.00220	.03669	.00220	.00041	.00088	-.00324	-.00018	.00314

DATE 27 SEP 75 TABULATED SOURCE FORCE DATA-NAAL T01

(R0N005) ( 24 JUN 75 )

NR.T01.0405 ORB 816C507F1J7612487V5X104GP

PARAMETRIC DATA

BETA = .000 B-FLAP = -18.000  
RUDDER = .000 GP-POS = 24.000  
ELEVON = 5.000 AILRON = .000  
MACX/L = .000 LIP = 4.000

REFERENCE DATA

SLCF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 305/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	QL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.940	1.10230	.27310	-.05120	1.13600	-.01850	-.00130	-.00190	.00300	.67610	.02023
.100	16.950	1.17190	.33160	-.04920	1.21770	-.02526	-.00060	-.00330	.00500	.67450	.02361
.100	19.020	1.22230	.39750	-.05070	1.29510	-.02317	.00080	-.00190	-.00200	.67410	.03546
.100	21.170	1.26690	.47650	-.06490	1.35350	-.01159	.00340	.00190	-.01700	.67720	.04454
.100	23.190	1.33450	.55620	-.07650	1.44630	-.01220	.00430	.00180	-.01200	.67890	.04897
.100	25.240	1.40470	.64740	-.08370	1.54660	-.01344	.00180	.00320	-.01000	.67940	.05457
GRADIENT		.07834	.03633	-.00359	.03892	.00106	.00044	.00035	-.00181	.00046	.00346

(R0N006) ( 24 JUN 75 )

NR.T01.0405 ORB 816C507F1J7612487V5X104GP

PARAMETRIC DATA

BETA = .000 B-FLAP = -18.000  
RUDDER = .000 GP-POS = 24.000  
ELEVON = .000 AILRON = .000  
MACX/L = .000 LIP = 4.000

REFERENCE DATA

SLCF = 4.4119 50.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 305/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	QL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	14.880	1.01540	.25100	-.05760	1.04580	-.01829	-.00340	-.00180	.00000	.66260	.01979
.100	16.950	1.10020	.30580	-.05740	1.14150	-.02623	-.00020	-.00410	.00400	.66230	.02336
.100	19.020	1.19780	.36940	-.05140	1.21500	-.02803	.00090	-.00420	.00300	.66330	.03206
.100	21.090	1.20750	.44880	-.02990	1.26800	-.01583	.00460	-.00710	-.00500	.66830	.04093
.100	23.140	1.27680	.52680	-.04460	1.36090	-.01731	.00310	.00060	-.00600	.67160	.04703
.100	25.260	1.35020	.61110	-.05290	1.48190	-.02365	.00280	.00110	-.00700	.67280	.05070
GRADIENT		.03106	.03506	-.00492	.04097	.00025	.00049	.00039	-.00102	.00116	.00323

DATE 27 SEP 73

BULL-10 SPACE FORCE DATA-NAL 701

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NR.701.0405 QTS 816C507F1J7N67V5X10+GF

(R0N007) ( 24 JUN 73 )

## REFERENCE DATA

SPOT = 4.4119 54. FT. ORP = 43.9374 INCHES  
 LIFT = 19.2999 1 FT. YARP = .0000 INCHES  
 BEF = 37.9349 1 FT. ZARP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B-FLAP = -16.000  
 RUDDER = .000 GP-POS = 240.000  
 ELEVON = .000 AILRON = .000  
 MAC/L = .000 LIP = 4.000

RUN NO. 307/ 0 RNL = 1.17 GRADIENT INTERVAL = -9.00/ 5.00

MAC	ALPHA	QL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAS
.160	10.690	.80350	.14810	.00870	.6.880	-.00389	.00080	-.00220	-.00300	.65610	.01262
.160	12.840	.93130	.19710	-.00410	.93180	-.01491	.00010	-.00170	-.00100	.66150	.01945
.160	14.830	1.03540	.24680	-.01010	1.06400	-.02767	-.00030	-.00140	.00000	.66340	.01962
.160	16.560	1.12000	.30140	-.01250	1.15920	-.03983	-.00060	-.00200	.00000	.66320	.02195
.160	19.020	1.18340	.36480	-.01520	1.23770	-.04087	.00020	-.00300	.01300	.66440	.02925
.160	21.070	1.24230	.43670	-.02400	1.31620	-.03919	.00460	-.00700	.07400	.66700	.03776
.160	23.130	1.28870	.52100	-.03350	1.38970	-.02721	.00440	.00140	-.01000	.67120	.04704
.160	25.240	1.36480	.61000	-.05530	1.49460	-.03016	.00460	.00040	-.01500	.67320	.05145
GRADIENT		.03676	.03154	-.07501	.04462	-.00163	.00037	.00007	-.00014	.00104	.00246

## REFERENCE DATA

SPOT = 4.4119 54. FT. ORP = 43.9374 INCHES  
 LIFT = 19.2999 1 FT. YARP = .0000 INCHES  
 BEF = 37.9349 1 FT. ZARP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B-FLAP = -16.000  
 RUDDER = .000 GP-POS = 270.000  
 ELEVON = .000 AILRON = .000  
 MAC/L = .000 LIP = 4.000

RUN NO. 308/ 0 RNL = 1.17 GRADIENT INTERVAL = -9.00/ 5.00

MAC	ALPHA	QL	CLF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAS
.160	10.690	.80350	.14810	.00870	.6.880	-.00389	.00010	-.00400	-.00400	1.27170	.02217
.160	12.840	.93130	.19710	-.00410	.93180	-.01491	.00020	-.00350	-.00300	1.21060	.02174
.160	14.830	1.03540	.24680	-.01010	1.06400	-.02767	.00040	-.00330	-.00600	.44510	.02149
.160	16.560	1.12000	.30140	-.01250	1.15920	-.03983	.00060	-.00300	-.00500	.35410	.02102
.160	19.020	1.18340	.36480	-.01520	1.23770	-.04087	.00100	-.00240	-.00700	.60140	.02130
.160	21.070	1.24230	.43670	-.02400	1.31620	-.03919	.00120	-.00140	-.00800	.63270	.02190
.160	23.130	1.28870	.52100	-.03350	1.38970	-.02721	.00040	-.00260	-.00300	.64980	.02187
.160	25.240	1.36480	.61000	-.05530	1.49460	-.03016	.00060	-.00180	-.00300	.65570	.02166
GRADIENT		.03676	.03154	-.07501	.04462	-.00163	.00040	-.00180	-.00200	.65930	.02152
							.00040	-.00210	.00400	.66140	.02199
							-.00060	-.00350	.00400	.66140	.02159
							-.00010	-.00300	.00700	.66020	.03344
							.00090	-.00690	.00000	.66130	.04762
							.00490	.00030	-.00300	.66290	.04971
							.00017	.00029	-.00020	-.03307	-.00042

NR.701.0405 QTS 816C507F1J7N67V5X10+GF

(R0N008) ( 24 JUN 73 )

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAL T01

NR.T01.0405 ORB B16C507F1J7G12487N5110-6P (R0N510) ( 24 JUN 73 )

REFERENCE DATA

SHIP Y 4.4119 50.FT. XDRP = 43.5974 INCHES  
 CLIP = 19.2999 INCHES YMRP = 1.0000 INCHES  
 SDRP = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .0000  
 RUDDER = .0000  
 ELEVON = .0000  
 MACV/L = .0000

PARAMETRIC DATA

RUN NO. 311/ 0 RVAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CD	CLM	CLN	CLP	CLN	CLN	CY	XCP/L	CAB
.100	8.520	.61450	.11500	.01320	.02430	.02374	.00090	.00140	-.00400	.65120	.01648
.100	10.840	.73760	.14940	.02760	.75250	.01056	.00040	-.00110	-.00400	.65620	.01899
.100	12.770	.85970	.19350	.03340	.88000	-.00763	.00020	-.00740	-.00300	.66010	.01406
.100	14.800	.97720	.24260	.03650	1.00000	-.01460	.00000	-.00720	-.00200	.66230	.02051
.100	16.900	1.09440	.29310	.03810	1.09400	-.02626	-.00060	-.00720	.00100	.66100	.02160
.100	18.960	1.12120	.33250	.03820	1.17630	-.03157	.00020	-.00580	.00300	.66000	.02725
.100	21.000	1.16300	.41670	.03830	1.23500	-.02864	.00270	-.00590	.00300	.65900	.03623
.100	23.100	1.21700	.48890	.03810	1.29910	-.01714	.00480	-.00740	-.00300	.66220	.04374
.100	25.120	1.25700	.56680	.03860	1.37860	-.02056	.00450	.00000	-.00300	.66270	.04959
GRADIENT		.03181	.02724	-.00115	.04436	-.00260	.00026	-.00005	.00016	.00449	.00109

REFERENCE DATA

SHIP Y 4.4119 50.FT. XDRP = 43.5974 INCHES  
 CLIP = 19.2999 INCHES YMRP = 1.0000 INCHES  
 SDRP = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .0000  
 RUDDER = .0000  
 ELEVON = .0000  
 MACV/L = .0000

PARAMETRIC DATA

RUN NO. 311/ 0 RVAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CD	CLM	CLN	CLP	CLN	CLN	CY	XCP/L	CAB
.100	8.590	.71920	.12970	-.03610	.79080	.02680	.00040	-.00110	-.00200	.67770	.01832
.100	10.660	.83690	.16110	-.04370	.85500	.01010	.00000	-.00100	-.00100	.67810	.01867
.100	12.770	.93410	.21510	-.04990	.97810	-.00124	-.00010	-.00040	.00000	.67890	.01927
.100	14.800	1.04390	.26630	-.05270	1.09720	-.01436	-.00060	-.00760	.00000	.67720	.02032
.100	16.950	1.15980	.31970	-.04710	1.18330	-.02638	-.00120	-.00620	.00000	.67420	.02793
.100	19.080	1.19990	.36360	-.04100	1.25940	-.02847	.00120	-.00620	.00000	.67170	.03010
.100	21.070	1.21780	.42660	-.03680	1.29620	-.02289	.00370	-.00440	-.00100	.67020	.03911
.100	23.110	1.25480	.52280	-.04080	1.35910	-.01161	.00320	.00100	-.01100	.67070	.04694
.100	25.170	1.32120	.60840	-.04370	1.43480	-.01146	.00190	.00100	-.00600	.67060	.05113
GRADIENT		.05484	.02836	.00013	.04195	-.00204	.00025	.00001	-.00033	-.00058	.00213

NR.701.0405 ORB B16C3D7F1J7612487E18V5X10+GP

(RDXS12) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = 15.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 312/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	6.730	.89620	.16720	-.11830	.90130	.03072	-.00080	.00000	.00200	.70710	.01871
.160	10.810	1.00630	.21390	-.12330	1.02860	.02139	-.00140	.00000	.00400	.70300	.01889
.160	12.890	1.10510	.26270	-.12330	1.13580	.00951	.00030	.00000	.00300	.69890	.01967
.160	14.990	1.19830	.31890	-.11840	1.23980	-.00293	-.00130	-.00060	.00300	.69420	.02145
.160	17.020	1.25500	.37290	-.10490	1.30920	-.01075	-.00080	-.00490	.00900	.68870	.02324
.160	19.070	1.28820	.43310	-.09330	1.35970	-.00976	.00150	-.00520	.00400	.68460	.02305
.160	21.120	1.31440	.50520	-.08830	1.40810	-.00251	.00260	-.00060	-.00900	.68250	.04077
.160	23.150	1.33370	.58660	-.08970	1.47540	.00699	.00170	.00200	-.00800	.68180	.04984
.160	25.200	1.41860	.67850	-.08900	1.57250	.00975	-.00050	-.00260	.00000	.68030	.05617
GRADIENT		.02985	.03349	.00234	.63802	-.00120	.00017	-.00014	-.00056	-.00173	.00240

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = -20.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 313/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	6.210	.17220	.08250	.21600	.18220	.05715	.00100	.00060	-.00700	.33450	.02345
.160	10.310	.28950	.10140	.21760	.30300	.04796	.00040	.00000	-.00700	.30220	.02253
.160	12.410	.40780	.13490	.21280	.42720	.04415	.00060	.00000	-.00900	.48180	.02159
.160	14.520	.52770	.17240	.20240	.55410	.03456	.00020	-.00030	-.00700	.32890	.02116
.160	16.610	.64800	.21540	.19370	.68250	.02124	-.00030	.00000	-.00400	.55810	.02182
.160	18.710	.74780	.26130	.18730	.79210	.00749	-.00050	-.00190	-.00300	.57510	.02303
.160	20.790	.83700	.31700	.17640	.89500	-.00079	.00070	-.00270	.00000	.58920	.02856
.160	22.860	.91050	.36810	.15250	.98980	.00390	.00610	-.00300	-.00200	.50470	.03654
.160	24.930	.97450	.43230	.13650	1.07440	-.00763	.00350	-.00080	-.00300	.61430	.04333
GRADIENT		.04903	.02224	-.00479	.03422	-.00383	.00021	-.00017	.00036	.01906	.00110

NR.701.0405 ORB B16C5D7F1J7612487E18V5X10+GP

(R0N314) ( 24 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XRRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 GP-POS = 209.000  
 ELEVON = .000 AIRLON = 10.000  
 NACX/L = .000 LIP = 4.000

RUN NO. 314/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ACH	ALPHA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	0.520	.60220	.12000	.02080	.61330	.02946	.00220	.04230	-.04100	.84780	.01986
.100	10.650	.72320	.15620	.01280	.73960	.02046	.00060	.04140	-.04100	.83370	.01961
.100	12.720	.84170	.19890	.00930	.86420	.00876	-.00100	.04040	-.04000	.83770	.01959
.100	14.820	.95560	.24870	-.00030	.98740	-.00407	-.00310	.03380	-.03800	.66010	.02121
.100	16.880	1.07020	.29640	.00350	1.07190	-.01559	-.00500	.02270	-.02800	.65880	.02202
.100	17.110	1.47950	2.63370	-.24490	-2.76630	-.32767	-.00120	-.01510	.01690	.68220	.32767
.100	18.050	1.17100	.33510	.00910	1.15670	-.02176	-.00570	.02720	-.02100	.63710	.02596
.100	20.390	1.14270	.41750	.00860	1.21590	-.01937	-.00350	.02160	-.01800	.63740	.03416
.100	23.030	1.18690	.49470	-.00010	1.28500	-.00881	-.00130	.02070	-.02000	.66900	.04320
GRADIENT	.04545	.04012	.04012	-.00245	.02207	-.00532	-.00035	-.00199	.00217	.00040	.00337

NR.701.0405 ORB B16C5D7F1J7612487E18V5X10+GP

(R0N315) ( 24 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XRRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = .000 AIRLON = 10.000  
 NACX/L = .000 LIP = 4.000

RUN NO. 315/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ACH	ALPHA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-1.020	-.02100	.06120	.04580	-.02240	.08085	.01030	.03950	-.03700	1.39250	.02214
.100	.090	.04640	.07850	.04420	.04640	.07855	.00980	.04110	-.03900	.31810	.02185
.100	1.060	.11360	.07580	.04040	.11500	.07569	.00900	.04060	-.03900	.53380	.02142
.100	2.120	.17810	.07530	.03820	.18080	.06867	.00820	.04670	-.03900	.58410	.02127
.100	4.250	.29970	.07850	.01430	.30470	.05607	.00660	.03950	-.04000	.61950	.01997
.100	6.330	.42040	.08960	.02630	.42770	.04272	.00560	.03950	-.04300	.63770	.01935
.100	8.420	.55210	.11290	.01830	.56260	.03087	.00360	.04240	-.04900	.64820	.01982
.100	10.500	.66200	.14800	.01280	.67790	.02485	.00190	.04070	-.04700	.65310	.01897
.100	12.630	.77590	.18660	.01000	.79840	.01443	.00020	.04020	-.04700	.65940	.01944
.100	14.710	.89050	.23720	.00620	.92160	.00333	-.00170	.03970	-.04600	.65750	.02060
.100	16.770	.97950	.28550	.00830	1.02020	-.00933	-.00370	.03940	-.04100	.65700	.02097
.100	18.850	1.05420	.33660	.01930	1.10700	-.02017	-.00550	.03940	-.02600	.65370	.02433
.100	20.900	1.08250	.39430	.02790	1.16130	-.02153	-.00400	.03920	-.02100	.65130	.03043
.100	22.930	1.12440	.45870	.02930	1.21430	-.01571	-.00090	.03900	-.02300	.65130	.03892
.100	25.010	1.17000	.53800	.02810	1.28760	-.00719	-.00430	.03800	-.01700	.65210	.04612
GRADIENT	.06099	-.00051	.04012	-.00226	.06221	-.00482	-.00070	-.00008	-.00046	-.08708	-.00040

NR.701.0405 ORB 816X307F1J7612W87E18V5X10+CP

(RONS16) ( 24 JUN 73 )

## REFERENCE DATA

SECF = 4.4119 GJFT. ORP = 43.5974 INCHES  
 UREF = 0.0000 INCHES ORP = 0.0000 INCHES  
 PREP = 57.1233 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = -20.000 AIRON = .000  
 MACX/L = .000 LIP = 4.000

RUN 1.0, 316/ 0 RUL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	QDF	CLM	ON	CAP	CLN	CSL	CY	XCP/L	CAB
.180	-1.260	-.36270	.11410	.21880	-.38510	.10561	.00020	-.01270	-.00900	.66390	.01932
.160	-.270	-.41090	.10940	.23620	-.41150	.10748	.00100	.00100	-.00600	.86650	.01976
.160	.760	-.33600	.09960	.23060	-.33460	.10416	.00130	.00110	-.00800	.90720	.01938
.160	1.810	-.26710	.09020	.22610	-.26420	.09868	.00100	.00140	-.00700	.96710	.01896
.160	3.930	-.12720	.07870	.21890	-.12150	.08724	.00140	.00130	-.01000	1.30630	.01923
.160	6.030	.00040	.07320	.21170	.00810	.07280	.00140	.00150	-.01000	-3.27670	.02045
.160	8.120	.12430	.07790	.21010	.13400	.05957	.00140	-.00030	-.00800	.09750	.02067
.160	10.200	.22730	.09010	.21390	.23970	.04844	.00100	-.00050	-.00700	.33980	.01978
.160	12.320	.35260	.12040	.20860	.37010	.04234	.00090	-.00020	-.00700	.45770	.01911
.160	14.420	.46970	.15870	.20220	.49450	.03676	.00020	-.00090	-.00600	.51320	.01856
.160	16.510	.58700	.20030	.19760	.61970	.02518	.00000	-.00000	-.00400	.54550	.01955
.160	18.610	.68570	.24240	.19590	.72720	.01086	-.00050	-.00190	.00000	.56330	.02054
.160	20.740	.77580	.29230	.19480	.82910	-.00147	.00010	-.00180	.00200	.57560	.02437
.160	22.760	.83570	.34970	.17900	.90590	-.00081	.00460	-.00480	.00100	.58920	.03116
.160	24.810	.89520	.41430	.16920	.98640	.00036	.00600	-.00300	.00000	.59840	.03737
GRADIENT		.05426	-.00712	-.00116	.05582	-.00385	.00018	.00195	-.00033	.08554	-.00007

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAL 701

PAGE 220

NR.701.0405 ORB 816C5D7F1J7612M07E18V51D4GP

(R040317) ( 24 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.3349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 159.000  
 ELEVON = 15.000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 317/ 0 RNL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

YAOH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-1.770	.30520	.08110	-.09640	.30400	.08519	.00080	-.00130	.00000	.77380	.02293
.160	.250	.35970	.08370	-.09320	.36010	.08214	.00050	-.00130	.00000	.75490	.02258
.160	1.300	.41630	.08650	-.09340	.41820	.07704	.00050	-.00120	.00000	.74190	.02206
.160	2.340	.46390	.09090	-.09340	.46730	.07189	.00060	-.00140	.00000	.73170	.02116
.160	4.450	.56080	.10260	-.09180	.56710	.05877	.00040	-.00370	.00500	.71810	.02029
.160	6.540	.71940	.12880	-.11600	.72940	.04603	.00010	-.00220	.00300	.71700	.01911
.160	8.640	.93120	.16560	-.11610	.84670	.03383	.00020	-.00070	.00200	.70920	.01941
.160	10.710	.92970	.20610	-.11550	.95180	.02976	-.00030	-.00070	.00300	.70350	.01926
.160	12.810	1.03920	.25680	-.11530	1.07530	.02070	-.00050	-.00050	.00400	.69860	.02027
.160	14.910	1.14110	.31130	-.11330	1.18280	.00732	-.00080	-.00110	.00600	.69430	.02274
.160	16.960	1.21770	.36640	-.10320	1.27170	-.00488	-.00030	-.00470	.01000	.68910	.02513
.160	19.020	1.27590	.42390	-.09080	1.34630	-.00951	.00070	-.00760	.01400	.68420	.03087
.160	21.050	1.29000	.48330	-.07420	1.37050	-.00319	.00450	-.00540	.00400	.67940	.03831
.160	23.080	1.27670	.55010	-.06090	1.39010	.00546	.00380	-.00310	-.00600	.67570	.04733
.160	25.130	1.31680	.62830	-.05660	1.45900	.00963	.00080	-.00200	-.00100	.67390	.05301
GRADIENT		.04881	.00343	.00088	.05024	-.00513	-.00006	-.00044	.00091	-.01037	-.00033



DATE 27 JUL 73 TABULATED SOURCE FORCE DATA-NAAL 701

(RDN318) ( 24 JUN 73 )

NR.701.0405 ORB B16C50717612M87E18VSX10-CP

PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
RUDDER = .000 CP-POS = 159.000  
ELEVON = 5.000 AILRON = .000  
NACK/L = .000 LIP = 4.000

REFERENCE DATA

REF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
LREF = 19.2939 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 318/ 0 RNL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-.910	.13450	.07100	-.00500	.10340	.07331	.00090	-.00250	-.00400	.68040	.02194
.100	.150	.16710	.07010	-.00750	.16750	.06979	.00100	-.00180	-.00200	.67610	.02146
.100	1.100	.23620	.07060	-.01050	.23770	.06577	.00090	-.00190	-.00200	.67560	.02113
.100	2.250	.29740	.07140	-.01330	.30000	.05983	.00080	-.00170	-.00200	.67590	.02028
.100	4.310	.41640	.07950	-.01760	.42120	.04774	.00090	-.00170	-.00200	.67500	.01958
.100	6.410	.55520	.09570	-.02550	.54250	.03536	.00070	-.00220	.00000	.67690	.01800
.100	8.520	.67120	.12500	-.03780	.68240	.02433	.00030	-.00110	.00000	.67990	.01834
.100	10.600	.77490	.16270	-.05350	.79160	.01731	-.00020	-.00080	.00100	.67750	.01894
.100	12.710	.86980	.20800	-.08050	.91380	.00713	-.00070	-.00040	.00200	.67590	.01986
.100	14.790	.98950	.25700	-.04200	1.02240	-.00414	-.00070	-.00250	.00500	.67330	.02289
.100	16.870	1.08720	.31100	-.04190	1.13070	-.01799	-.00000	-.00670	.01100	.66800	.02653
.100	18.950	1.15480	.36770	-.02970	1.21160	-.02737	.00000	-.00840	.00900	.66510	.03593
.100	20.980	1.16900	.42610	-.01820	1.26280	-.02878	.00260	-.00350	-.00300	.66330	.04439
.100	23.010	1.19750	.48890	-.01190	1.29310	-.01805	.00580	-.00350	-.00200	.66240	.04972
.100	25.050	1.23570	.56470	-.00920	1.35360	-.01180	.00350	-.00020	.00028	-.00081	-.00047
.100	.05990	.00148	.00148	-.00234	.06103	-.00439	-.00001	.00012			

GRADIENT

(RONS19) ( 24 JUN 73 )

NR.701.0405 ORS 816C507F1J7612687V5X10+CP

PARAMETRIC DATA

BETA = .000 B-FLAP = -16.000  
RUDDER = .000 GP-POS = 159.000  
ELEVON = .000 AIRON = .000  
NACK/L = .000 LIP = 4.000

REFERENCE DATA

SRF = 4.4119 SQ.FT. YMRP = 45.5974 INCHES  
LRLJ = 19.2999 INCHES YMRP = .0000 INCHES  
SRF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 319/ 0 PW/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	ODF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.00	-1.010	-.02080	.07350	.04840	-.02210	.07317	.00120	-.07270	-.00590	1.44330	.02116
.10	.000	.04760	.06970	.04620	.04770	.06971	.00110	-.06170	-.00130	.31190	.02793
.20	1.100	.11230	.06750	.04310	.11360	.06533	.00120	-.00190	-.00400	.32380	.02032
.30	2.150	.18090	.06720	.04030	.18330	.07041	.00110	-.06170	-.00400	.78100	.01596
.40	4.280	.36740	.07050	.03590	.31180	.04753	.00120	-.00140	-.00500	.62180	.01934
.50	6.375	.42390	.08180	.02820	.43540	.03432	.00090	-.00200	-.00100	.63640	.01850
.60	8.470	.55610	.10520	.02090	.56550	.02221	.00030	-.00080	-.00100	.54670	.01811
.70	10.540	.67030	.14170	.01060	.69170	.01548	.00030	-.00080	-.00100	.65440	.01883
.80	12.650	.78700	.18220	.00730	.85860	.00516	.00000	-.00010	-.00100	.65670	.01946
.90	14.720	.89760	.23000	.00400	.92650	-.00575	-.00010	.00000	.00000	.65840	.01992
1.00	16.830	1.00410	.28330	.00200	1.04370	-.02004	-.00070	-.00110	.00000	.65890	.02254
1.10	18.910	1.10780	.33160	.00150	1.13760	-.03147	-.00040	-.00560	.00900	.65630	.02513
1.20	20.960	1.21640	.37510	.00170	1.18420	-.03963	.00260	-.00070	.00800	.65460	.03260
1.30	22.970	1.32700	.42310	.02100	1.21550	-.02090	.00710	-.00530	.00400	.65370	.04101
1.40	25.010	1.46510	.52390	.02340	1.27870	-.01858	.00360	-.00720	.00300	.65420	.04604
GRADIENT	.06237	-.0749	-.0749	-.04278	.06344	-.00490	.00000	.00020	.00022	-.09367	-.00036

NR. 701.0405 ORB 816C507F1J7612487E18V5X10+CP

(RDN020) ( 24 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 GP-POS = 108.000  
 ELEVON = .000 AILPON = .000  
 MACX/L = .000 LIP = 4.000

## PARAMETRIC DATA

RUN NO. 320/ 0 RN/L = 1.17 GRADIENT INTERVAL = -3.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.190	-.22890	.07730	.03810	-.123363	.06041	.00100	-.00170	-.00300	.71890	.02756
.160	-2.080	-.06800	.06560	.03470	-.09030	.06246	.00130	-.00140	-.00400	.79790	.02623
.160	-.990	-.01760	.06200	.03290	-.01870	.06172	.00130	-.00140	-.00500	1.28330	.02512
.160	.030	.04450	.05910	.03100	.04450	.05916	.00140	-.00160	-.00400	.40970	.02545
.160	1.060	.10870	.05790	.02930	.10980	.05598	.00120	-.00150	-.00400	.56420	.02547
.160	2.130	.17180	.05830	.02790	.17390	.05187	.00120	-.00170	-.00400	.60220	.02457
.160	4.220	.29070	.06320	.02480	.29460	.04158	.00120	-.00140	-.00400	.62970	.02362
.160	6.300	.40120	.07370	.02240	.40680	.02924	.00130	-.00110	-.00500	.64020	.02339
.172	8.400	.52220	.09340	.01990	.53060	.01813	.00070	-.00150	-.00300	.64640	.02363
.160	10.480	.63550	.12870	.01490	.64830	.01084	.00060	-.00460	-.00500	.65170	.02363
.160	12.570	.74340	.16750	.01190	.76210	.00161	.00000	-.00040	-.00100	.65430	.02483
.160	14.670	.85700	.21480	.01100	.83350	-.00937	.00000	-.00010	-.00100	.65550	.02686
.160	16.760	.96050	.26420	.01120	.99590	-.02407	-.00050	-.00070	.00000	.65590	.03007
.160	18.810	1.04190	.31960	.01690	1.08770	-.03592	-.00030	-.00470	.00000	.65370	.03307
.160	20.890	1.09170	.37150	.02770	1.15240	-.04420	-.00030	-.00740	.00000	.65130	.04039
.160	22.910	1.10310	.42340	.03580	1.18140	-.03774	.00760	-.06910	.00300	.64910	.05170
.160	24.930	1.11760	.48340	.03970	1.21740	-.03289	.00590	-.10250	-.00200	.64820	.06735
GRADIENT	.06179	-.00171	-.00171	-.00159	.06285	-.00232	.00001	.00001	-.00007	-.03291	-.00045

MR.701.0405 ORB B16C507F1J7612UBYTE18V5X10+GP

(R0K521) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
 LREF = 19.7539 INCHES YMRP = .0000 INCHES  
 PREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B-FLAP = -16.000  
 RUCCER = .000 GP-POS = 109.000  
 ELEVON = 5.000 AILECON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 321/ 0 RV/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XC/L	CAB
.10	4.119	-.10420	.07100	-.01390	-.10900	.06343	.00100	-.00190	-.00390	.61400	.02860
.12	4.119	-.03250	.06320	-.01640	.03030	.06431	.00110	-.00180	-.00350	.8570	.02835
.14	4.119	-.09920	.06170	-.01810	.09820	.06337	.00120	-.00180	-.00300	.77020	.02852
.16	4.119	.16440	.06130	-.01940	.16450	.06107	.00110	-.00180	-.00100	.70230	.02692
.18	4.119	.22260	.06120	-.02090	.22400	.05669	.00120	-.00160	-.00300	.69340	.02623
.20	4.119	.28190	.06420	-.02200	.28410	.05347	.00120	-.00170	-.00270	.65770	.02579
.22	4.280	.33590	.07230	-.02350	.40020	.04255	.00110	-.00150	-.00300	.68110	.02525
.24	4.350	.38370	.08780	-.02590	.51070	.03156	.00100	-.00240	.00000	.67820	.02454
.26	4.470	.4300	.11370	-.03480	.64080	.01947	.00070	-.00180	.00000	.67950	.02392
.28	4.590	.4740	.15040	-.03410	.74950	.01361	.00040	-.00070	.00000	.67630	.02468
.30	4.700	.5010	.19210	-.03260	.86180	.00266	-.00010	-.00110	.00100	.67360	.02392
.32	4.750	.5270	.24000	-.03390	.97740	-.00825	.00000	-.00360	.00000	.67240	.02829
.34	4.800	.5540	.28420	-.03410	1.09500	-.02179	.00000	-.00160	.00200	.67110	.03154
.36	4.850	.5810	.35010	-.02290	1.17890	-.03371	.00020	-.00460	.00900	.66690	.03190
.38	4.900	.6080	.40470	-.01170	1.22570	-.03660	.00310	-.00880	.00950	.66340	.04286
.40	4.950	.6350	.45450	.00360	1.24620	-.03410	.00590	-.00580	.00000	.65890	.05491
.42	5.000	.6620	.51650	.01050	1.26610	-.02802	.00510	-.00110	-.00400	.65700	.06269
.44	5.050	.6890	.57015	-.00119	.06089	-.00255	.00001	.00005	.00007	-.00220	-.00045

GRADIENT

DATE 27 SEP 75

TRANSLATED SOURCE FORCE DATA-RUAL T01

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NR. T01.0405 ORB 816C507F1J7612B07E18V310+GP

(R0N022) ( 24 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 50.0 FT. WRP = 43.5974 INCHES  
 LREF = 19.2059 INCHES YWRP = .0000 INCHES  
 BREF = 37.5349 INCHES LWRP = 16.2050 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .0000 B. FLAP = -18.000  
 RUDDER = .0000 GP-POS = 109.000  
 ELEVON = 15.0000 AIRLON = .0000  
 NACX/L = .0000 LIP = 4.0000

RUN NO. 322/ 0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-3.930	.11550	.07030	-.10590	.11040	.07812	.00090	-.00110	-.00100	1.00420	.03123
.100	-1.820	.24000	.07010	-.10510	.23770	.07773	.00100	-.00110	.00000	.81860	.02060
.150	-1.790	.29840	.07160	-.10390	.29730	.07582	.00080	-.00100	.00000	.78780	.02920
.100	.220	.34920	.07470	-.10380	.34940	.07342	.00080	-.00040	-.00100	.76660	.02818
.100	1.250	.40440	.07840	-.10310	.40610	.06933	.00100	-.00040	-.00100	.75110	.02785
.100	2.320	.45290	.08330	-.10090	.45590	.06495	.00100	-.00040	-.00100	.73940	.02700
.100	4.390	.53560	.09630	-.09430	.54140	.05499	.00080	-.00180	.00100	.72230	.02584
.100	6.570	.68700	.12260	-.11340	.69630	.04402	.00040	-.00110	.00000	.71940	.02514
.100	8.590	.89040	.15770	-.11470	.81500	.03633	.00040	.00000	.00000	.71030	.02574
.100	10.660	.99170	.19890	-.11260	.92290	.02861	-.00020	-.00050	.00100	.70380	.02602
.100	12.770	.99950	.24510	-.10950	1.02890	.01789	-.00040	-.00040	.00300	.69810	.02698
.100	14.860	1.10270	.29980	-.10740	1.14270	.00695	.00000	-.00110	.00200	.69370	.02902
.100	16.920	1.18170	.35160	-.09950	1.23290	-.00767	.00000	-.00290	.00600	.68890	.03255
.100	18.970	1.23390	.40860	-.08490	1.29970	-.01475	.00040	-.00770	.01500	.68340	.03774
.100	21.030	1.26600	.47190	-.06810	1.35110	-.01395	.00350	-.00790	.01100	.67810	.04919
.100	23.020	1.24850	.51510	-.04400	1.35050	-.01420	.00410	-.00130	-.00700	.67170	.06100
.100	25.080	1.27850	.58920	-.03740	1.40780	-.00785	.00360	-.00380	.00200	.66950	.06896
.100		.05071	.00314	.00132	.05202	-.00285	-.00000	-.00002	.00012	-.03034	-.00064

GRADIENT

NR.701.0405 ORB B16C507F1J7612W87E16V5X10+CP

(RMS25) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. 100RP = 43.5974 INCHES  
 LREF = 19.2999 INCHES 100RP = .0000 INCHES  
 BREF = 37.9349 INCHES 200RP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 103.000  
 ELEVON = -20.000 AILRON = .000  
 NACA/L = .000 LIP = 4.000

RUN NO. 323/ 0 RNVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

HACH	ALPHA	CL	CD	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.467	-.69570	.14940	.22220	-.70520	.09476	.00060	-.00110	-.00200	.77500	.01667
.160	-2.735	-.54710	.12020	.21790	-.55150	.09788	.00070	-.00030	-.00100	.80170	.01630
.160	-1.179	-.47060	.11070	.21750	-.48220	.09993	.00110	.00040	-.00400	.82170	.01615
.160	-.726	-.41340	.10170	.21600	-.41380	.09991	.00130	.00030	-.00470	.84720	.01673
.160	.799	-.34230	.09190	.21040	-.34100	.09673	.00110	.00010	-.00340	.86140	.01789
.160	1.640	-.27360	.08420	.20710	-.27070	.09302	.00100	-.00020	-.00350	.93450	.01790
.160	3.940	-.13750	.07350	.20150	-.13190	.08284	.00110	-.00060	-.00100	1.20790	.01639
.160	6.260	-.01490	.06950	.19710	-.00680	.07062	.00110	-.00060	-.00100	3.27670	.01646
.160	8.200	.10470	.07250	.19660	.11390	.05682	.00060	-.00040	-.00600	.04070	.01766
.160	10.220	.27350	.08480	.20230	.21540	.04738	.00060	-.00100	-.00600	.32290	.01758
.160	12.300	.32400	.11120	.20380	.34030	.03969	.00100	-.00070	-.00500	.44500	.01756
.160	14.410	.43650	.14770	.19470	.45950	.03448	.00000	-.00090	-.00400	.50790	.01760
.160	16.520	.54910	.18200	.19180	.57990	.02428	-.00040	-.00080	-.00200	.54120	.01663
.160	18.580	.65160	.23750	.19380	.69120	.01093	-.00080	-.00100	-.00100	.55930	.01966
.160	20.710	.75200	.27590	.19780	.78230	-.00075	-.00010	-.00310	.00100	.56920	.02280
.160	22.720	.79960	.33950	.19100	.86520	-.00404	.00390	-.00420	-.00100	.58070	.02683
.160	24.790	.84560	.39270	.17980	.93230	.00189	.00510	-.00250	-.00200	.59070	.03326
.160	GRADIENT	.06629	-.00836	-.00253	.06806	-.00136	.00075	.00003	-.00039	.04690	-.00006

NR. T01.0405 CKB 816C507F1J7G1Z467E16V5X10+CP

(R0N024) ( 24 JUN 73 )

## REFERENCE DATA

SPD = 4.4119 SQ.FT. ORP = 43.5974 INCHES  
 LREF = 19.8999 INCHES Y-REF = .0000 INCHES  
 ORF = 37.9349 INCHES Z-REF = 16.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .0000 B-FLAP = -18.0000  
 RUDDER = .0000 CP-POS = 109.0000  
 ELEVON = .0000 ALLRON = 10.0000  
 MAX/L = .0000 LIP = 4.0000

## PARAMETRIC DATA

RUN NO. 324/ 0 RV/L = 1.17 GRADIENT INTERVAL = -3.00/ 5.00

MAON	ALPHA	CL	COF	CLN	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.170	-2.1600	.09000	.03090	-.22400	.07356	.01130	.03750	-.03200	.70940	.02163
.160	-2.080	-.06070	.07960	.02960	-.04350	.07666	.01100	.03630	-.03600	.78720	.02117
.160	-.990	-.00990	.07550	.02720	-.01120	.07534	.01050	.03630	-.03700	1.53330	.02109
.160	.040	.03630	.07270	.02520	.03640	.07266	.01010	.03630	-.03600	.49900	.02075
.160	1.080	.11790	.07220	.02390	.11920	.06999	.00950	.03540	-.03900	.56780	.02044
.160	2.130	.17940	.07260	.02370	.18200	.06608	.00870	.03630	-.03900	.61450	.02000
.160	4.200	.29260	.07750	.02190	.29750	.05570	.00750	.03540	-.04000	.64350	.01947
.160	6.310	.40290	.08850	.02150	.41020	.04565	.00590	.03770	-.04300	.64200	.01869
.160	8.410	.52140	.10070	.01490	.53180	.03224	.00430	.04070	-.04900	.64980	.01694
.160	10.490	.63400	.11490	.01370	.64920	.02415	.00240	.04060	-.04800	.65230	.01910
.160	12.550	.73580	.13100	.01320	.75750	.01675	.00070	.03940	-.04900	.65370	.01969
.160	14.670	.84780	.22920	.01260	.87610	.00701	-.00120	.03990	-.05000	.65480	.02182
.160	16.750	.94250	.27790	.01370	.93260	-.00557	-.00280	.03670	-.04700	.65493	.02171
.160	18.830	1.01830	.32660	.02550	1.06070	-.01763	-.00460	.03010	-.03300	.65140	.02420
.160	20.870	1.06610	.36220	.03730	1.13230	-.02279	-.00430	.02330	-.02300	.64810	.02976
.160	22.920	1.07840	.43680	.04190	1.16330	-.01742	-.00290	.01770	-.02000	.64700	.03696
.160	24.940	1.10510	.50540	.04400	1.21520	-.00773	-.00180	.01780	-.01900	.64700	.04394
GRADIENT	.16133	-.00155	-.00155	-.00120	.00263	-.00225	-.00349	.00226	-.00091	-.03593	-.00026

MR. 701.0405 ORB 810C50771J7612R07E18V51104GP

(R00329) ( 24 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 54.17. 1000P = 43.5974 INCHES  
 LREF = 19.2599 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2500 INCHES  
 SCALE = .0405 SCALE

PETA = .0000 B.FLAP = -18.0000  
 RUDDER = .0000 CP-RJ3 = 7.760  
 ELEVON = .0000 ALURON = 10.0000  
 NACA/L = .0000 LIP = 4.0000

## PARAMETRIC DATA

RUN NO. 325/ 0 RVAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.100	-4.119	-1.1740	.08200	.01240	-1.8000	.06928	.01130	.03530	-.03100	.68400	.02036
.100	-2.100	-.05400	.07490	.01270	-.06190	.07275	.01060	.03630	-.03700	.73440	.02012
.100	-1.360	.02330	.07210	.01320	.00110	.07214	.01030	.03510	-.03900	3.16770	.02019
.100	.000	.03750	.07070	.01130	.03760	.07072	.00980	.03670	-.04000	.57840	.01985
.100	1.070	.11360	.07060	.01250	.11490	.06446	.00820	.03700	-.04100	.68090	.01940
.100	2.130	.17410	.07120	.01360	.17070	.06495	.00650	.03710	-.04200	.68120	.01891
.100	4.190	.2734	.07600	.01530	.27500	.05611	.00700	.03740	-.04400	.63990	.01839
.100	6.270	.3740	.08600	.01650	.38140	.04768	.00560	.03720	-.04400	.64440	.01835
.100	8.350	.4860	.10000	.01590	.47680	.03421	.00440	.03930	-.05100	.64960	.01850
.100	10.450	.59450	.13430	.01590	.67880	.02432	.00490	.03970	-.04900	.65050	.01906
.100	12.530	.69770	.17540	.01670	.71920	.01936	.00060	.03930	-.05100	.65160	.02029
.100	14.620	.7987	.21500	.01640	.82740	.01036	-.00100	.03850	-.05000	.65200	.02105
.100	16.690	.89180	.26740	.02170	.93490	-.00115	-.00260	.03740	-.04900	.65160	.02245
.100	18.810	.96550	.31960	.02060	1.03590	-.01533	-.00440	.03350	-.04200	.64960	.02455
.100	20.800	1.03590	.36910	.04630	1.09760	-.02219	-.00490	.02500	-.02700	.64490	.02666
.100	22.840	1.05460	.42070	.05650	1.13500	-.02169	-.00250	.01900	-.02300	.64220	.03597
.100	24.870	1.06510	.48190	.06700	1.16900	-.01063	-.00110	.01810	-.02100	.64120	.04233
GRADIENT	.03371	-.07076	-.07076	.03371	.03495	-.00164	-.00052	.00024	-.00112	-.06522	-.00027



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TABULATED SOURCE FORCE DATA-NAAL 731

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NR.701.0405 ORB 016C50W71J7612WBTE18VSX10-CP

(R040326) ( 24 JUN 73 )

## REFERENCE DATA

SADP = 4.4119 INCHES  
 LADP = 19.2499 INCHES  
 BWDP = 37.9349 INCHES  
 SCALE = .0405 SCALE

ORRP = 43.5974 INCHES  
 YREF = .0000 INCHES  
 ZORP = 16.2000 INCHES

## PARAMETRIC DATA

BETA = .000  
 RUDOR = .000  
 ELEVON = -20.000  
 XCVL = .000  
 LIP = 4.000

0. FLAP = -18.000  
 CP-POS = 7.780  
 ATLON = .000  
 LIP = 4.000

GUN NO. 326/ 0 RVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

WAD	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.100	-4.410	-61940	.13270	.19090	-.62780	.08473	.00040	-.00110	-.00200	.76690	.01670
.100	-2.310	-.46990	.10060	.18650	-.49310	.08982	.00100	.00040	-.00300	.79370	.01585
.100	-1.270	-.43530	.10060	.18790	-.43750	.09093	.00110	.00100	-.00300	.81410	.01610
.100	-.220	-.37900	.09340	.18800	-.37340	.09272	.00110	.00130	-.00400	.83780	.01484
.100	.810	-.31660	.08300	.18540	-.31530	.09032	.00120	.00070	-.00500	.87210	.01495
.100	1.660	-.23770	.07920	.18590	-.25500	.08759	.00100	.00050	-.00400	.92160	.01551
.100	3.930	-.13520	.07010	.18180	-.13000	.07931	.00090	.00010	-.00500	1.16160	.01550
.100	6.090	-.01780	.06740	.18040	-.01060	.06894	.00120	.00060	-.00700	3.27670	.01562
.100	8.130	.09740	.07020	.18290	.07940	.05674	.00070	.00010	-.00600	.00100	.01568
.100	10.190	.18970	.08080	.18920	.20100	.04597	.00060	-.00060	-.00500	.32190	.01580
.100	12.270	.29300	.10160	.19520	.30790	.03697	.00050	-.00030	-.00400	.43240	.01483
.100	14.370	.40490	.13880	.19130	.43050	.03267	.00050	-.00040	-.00500	.50650	.01621
.100	16.440	.51730	.17760	.18930	.54650	.02410	.00030	-.00030	-.00500	.55561	.01758
.100	18.530	.62060	.22020	.19260	.65840	.01153	-.00040	.00000	-.00400	.55490	.01910
.100	20.610	.72290	.26430	.20150	.75060	.00002	-.00040	-.00030	-.00200	.56360	.02069
.100	22.660	.77040	.31320	.20740	.83160	-.000789	.00210	-.00030	-.00100	.57340	.02582
.100	24.730	.81300	.37170	.19000	.89400	-.00252	.00590	-.00030	-.00200	.58330	.03062
GRADIENT	.03752	-.00745	-.00745	-.00086	.05915	-.00061	.00005	.00011	-.00037	.04291	-.00015

NR. 701.0405 ORB 816C507F1J7615H87E18V5X10+CP

(R0N027) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.1119 SQ.FT. XMRP = 45.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 3-FLAP = -18.000  
 RUDDER = .000 GP-POS = 7.760  
 ELEVON = 19.000 AILRON = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 327/ 0 PIVL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-5.310	.12640	.07300	-.11920	.12110	.08152	.000990	-.00120	-.001200	1.01310	.02397
.160	-1.820	.03700	.07490	-.11770	.23430	.08244	.000880	-.00120	.000000	.84020	.02256
.160	-1.750	.03000	.07710	-.11630	.28690	.08113	.000900	-.00130	.002000	.83540	.02236
.160	.1200	.03600	.08120	-.11430	.33630	.07890	.000680	-.00110	.000000	.78200	.02170
.160	1.290	.12470	.08470	-.11200	.38650	.07605	.000700	-.00060	.000000	.76390	.02144
.160	2.310	.4140	.08970	-.10970	.43470	.07225	.000300	-.00070	.000000	.75060	.02120
.160	4.370	.5130	.10290	-.10320	.52490	.06311	.000700	-.00060	.000000	.73050	.02032
.160	6.430	.5310	.12600	-.10230	.64330	.05428	.000900	-.00210	.001000	.72070	.02030
.160	8.560	.76310	.15990	-.11660	.78040	.04421	.000300	-.00100	.001000	.71360	.02060
.160	10.630	.96140	.20060	-.11050	.86360	.03814	.000700	-.00020	.000000	.70480	.02110
.160	12.730	.93470	.24630	-.10390	.99480	.02990	.000100	-.00040	.001000	.69780	.02203
.160	14.770	1.04320	.29630	-.09990	1.08430	.02059	.000000	-.00040	.000000	.69300	.02337
.160	16.850	1.14030	.35330	-.09450	1.19380	.00760	.000000	-.00140	.002000	.68840	.02652
.160	18.920	1.20930	.41010	-.08100	1.27700	-.00429	.000000	-.00580	.011000	.68270	.03008
.160	20.950	1.22930	.46900	-.06040	1.31570	-.00162	.00520	-.00840	.013000	.67640	.03751
.160	22.950	1.21310	.51100	-.03460	1.31640	-.00255	.00610	-.00560	.000000	.66940	.04473
.160	24.960	1.20610	.55770	-.01980	1.33320	.00518	.00590	-.00240	-.003000	.66530	.05019
GRADIENT		.01726	.00361	.00194	.14867	-.00229	-.00003	.00009	.00014	-.03112	-.00042

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TABULATED SOURCE FORCE DATA-HUAL 701

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NR. 701.0403 USB B16C507F1J7G12M07E16V3X10+CP

(RDN328) (24 JUN 73)

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 42.3974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 CP-POS = 7.760  
 ELEVON = 5.000 AILRON = .000  
 NACA/L = .000 LTP = 4.000

## PARAMETRIC DATA

RUN NO. 328/0 RN/L = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.020	-.07180	.06820	-.03450	-.07640	.06302	.00110	-.00180	-.00200	.49760	.02149
.160	-1.970	-.04810	.06440	-.03430	.04580	.06610	.00100	-.00150	-.00200	.92850	.02089
.160	-.910	.10460	.06350	-.03390	.10380	.06326	.00090	-.00170	-.00100	.77730	.02038
.160	.110	.15990	.06420	-.03410	.16000	.06391	.00090	-.00160	-.00100	.73640	.02029
.160	1.190	.21530	.06540	-.03360	.21650	.06106	.00090	-.00170	.00000	.71570	.01984
.160	2.200	.27070	.06790	-.03350	.27310	.05753	.00090	-.00160	-.00100	.70400	.01939
.160	4.250	.37260	.07590	-.03260	.37720	.04806	.00090	-.00150	-.00200	.69100	.01877
.160	6.360	.47100	.08980	-.03140	.47810	.03705	.00080	-.00100	-.00200	.68350	.01846
.160	8.420	.58790	.11420	-.03420	.59830	.02679	.00040	-.00130	.00000	.68050	.01866
.160	10.510	.69580	.14990	-.03200	.71150	.02048	.00060	-.00060	.00000	.67610	.01940
.160	12.620	.79480	.19130	-.02830	.81740	.01293	.00010	-.00070	.00000	.67240	.02080
.160	14.680	.89800	.23930	-.02630	.92930	.00386	-.00040	-.00030	.00200	.67010	.02264
.160	16.730	.90480	.26390	-.02240	.94240	-.00786	-.00060	-.00050	.00200	.66850	.02292
.160	18.850	1.08250	.34620	-.01570	1.13530	-.02216	-.00050	-.00040	.00200	.66490	.02780
.160	20.880	1.12460	.39830	-.00190	1.19270	-.02873	.00100	-.00060	.01300	.66050	.03290
.160	22.900	1.13560	.45240	.01120	1.22220	-.02512	.00450	-.00640	.00200	.65610	.04064
.160	24.910	1.11740	.50460	.02520	1.22590	-.01317	.00460	.00070	-.00800	.65260	.04669
.160	GRADIENT	.03366	.00091	.00022	.05470	-.00197	-.00002	.00002	.00007	.00596	-.00033

NR.701.0405 ORB B16C507T1J7612407V3104GP

(R0ND29) ( 24 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 94.FT. XCRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YCRP = .0000 INCHES  
 BREF = 57.9349 INCHES ZCRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 GP-POS = 7.780  
 ELEVON = .000 AIRON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 329/ 0 RNAL = 1.17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.160	-4.040	-1.1000	.07170	.01370	-1.1650	.05869	.00100	-.00170	-.00200	.68690	.01977
.160	-2.010	-.06340	.06470	.01420	-.06560	.06247	.00110	-.00140	-.00200	.73780	.01916
.160	-.980	-.00400	.06270	.01390	-.00590	.06261	.00110	-.00130	-.00200	1.48920	.01904
.160	.070	.05090	.06060	.01360	.05100	.06062	.00110	-.00160	-.00200	.56390	.01685
.160	1.020	.10680	.06060	.01430	.10790	.05857	.00120	-.00150	-.00300	.61230	.01664
.160	2.130	.15380	.06150	.01390	.16600	.05534	.00100	-.00180	-.00200	.62980	.01620
.160	4.190	.27320	.06690	.01370	.27730	.04639	.00110	-.00140	-.00300	.64220	.01791
.160	6.270	.37440	.07650	.01350	.38050	.03518	.00110	-.00120	-.00400	.64680	.01746
.160	8.360	.45210	.09900	.01380	.49140	.02482	.00100	-.00180	-.00300	.64990	.01749
.160	10.470	.59910	.12820	.01400	.61280	.01713	.00110	-.00100	-.00300	.65170	.01812
.160	12.520	.69940	.16590	.01510	.71870	.01033	.00040	-.00070	-.00200	.65240	.01961
.160	14.610	.80760	.21140	.01660	.83480	.00091	.00050	-.00070	-.00300	.65280	.02126
.160	16.690	.90900	.26720	.01680	.94540	-.01185	.00020	-.00110	-.00100	.65350	.02389
.160	18.790	1.00720	.31530	.02220	1.05530	-.02538	-.00010	-.00310	.00300	.65240	.02616
.160	20.830	1.05740	.36680	.03470	1.11870	-.03313	.00160	-.00790	.00900	.64900	.03010
.160	22.930	1.07820	.42300	.04650	1.15780	-.03071	.00460	-.00790	.00300	.64550	.03785
.160	24.880	1.07330	.47470	.05620	1.17340	-.02087	.00720	-.00240	-.00600	.64280	.04341
.160	GRADIENT	.05486	-.00068	.00000	.05532	-.00155	.00001	.00000	-.00011	-.02933	-.00022

DATE 27 JUN 73

TACULATED SOURCE FORCE DATA-MAL P01

PAGE 233

W. P01, C005 DBS B16C00T01J701200701510

0000311 ( 23 JUN 73 )

## REFERENCE DATA

SPT = 4.4119 30.0 FT. DRIP = 43.9974 INCHES  
 UPT = 19.2999 INCHES DRIP = .0000 INCHES  
 SPT = 37.9343 INCHES DRIP = 15.2000 INCHES  
 SCALE = 1.0000 SCALE

PJM NO. 331/ 0 PVL = 1.44 GRADIENT INTERVAL = -3.00/ 3.00

## PARAMETRIC DATA

BETA = .000 B.F.L.P. = -10.000  
 P.DEEP = .000 P.F.L.P. = .000  
 ELEVON = .000 A.L.P.H. = .000  
 W.A.L. = .000 L.P. = 4.000

W.A.H.	ALPHA	Q	QF	QJ	ON	CAF	QJN	CSL	CT	W.P.L	CAB
.201	-4.000	-1.3140	.04900	-.00200	-.13370	.05553	.00180	-.00170	-.00000	.00300	.01593
.202	-1.970	-.03310	.02890	.00000	-.03310	.05780	.00190	-.00190	-.00000	.00300	.01538
.203	-1.990	.01560	.03760	.00000	.01470	.05786	.00140	-.00190	-.00000	.00300	.01523
.204	.070	.06970	.03740	.00100	.06990	.05758	.00190	-.00140	-.00000	.00300	.01645
.205	1.000	.11000	.05760	.00270	.11790	.05551	.00140	-.00190	-.00000	.00300	.01603
.206	2.000	.15680	.05980	.00370	.16370	.05324	.00190	-.00190	-.00000	.00300	.01613
.207	4.170	.26020	.06470	.00590	.27020	.04515	.00190	-.00190	-.00000	.00300	.01559
.208	6.290	.36000	.07510	.00770	.37100	.03463	.00190	-.00190	-.00000	.00300	.01671
.209	8.370	.46270	.08600	.00930	.47140	.02518	.00190	-.00190	-.00000	.00300	.01679
.210	10.410	.56980	.10240	.01130	.58220	.01649	.00190	-.00190	-.00000	.00300	.01740
.211	12.470	.67730	.12490	.01400	.69330	.00829	.00180	-.00190	-.00000	.00300	.01721
.212	14.530	.78820	.15400	.01690	.80460	.00077	.00180	-.00190	-.00000	.00300	.02194
.213	16.600	.89900	.18470	.02010	.91600	-.00231	.00180	-.00190	-.00000	.00300	.02032
.214	18.710	.99700	.21510	.02350	1.02740	-.00467	.00180	-.00190	-.00000	.00300	.00733
.215	20.760	1.07930	.24510	.02690	1.13910	-.00697	.00180	-.00190	-.00000	.00300	.00653
.216	22.810	1.14310	.27450	.03000	1.25130	-.00919	.00180	-.00190	-.00000	.00300	.01161
.217	24.820	1.20130	.30340	.03290	1.36440	-.01121	.00180	-.00190	-.00000	.00300	.00007
.218	GRADIENT	.00000	-.00000	.00000	.00000	-.00000	.00000	-.00000	-.00000	.00000	.00000

W. P01, C005 DBS B16C00T01J701200701510

0000312 ( 23 JUN 73 )

## REFERENCE DATA

SPT = 4.4119 30.0 FT. DRIP = 43.9974 INCHES  
 UPT = 19.2999 INCHES DRIP = .0000 INCHES  
 SPT = 37.9343 INCHES DRIP = 15.2000 INCHES  
 SCALE = 1.0000 SCALE

PJM NO. 332/ 0 PVL = 1.44 GRADIENT INTERVAL = -3.00/ 3.00

## PARAMETRIC DATA

BETA = .000 B.F.L.P. = -10.000  
 P.DEEP = .000 P.F.L.P. = .000  
 ELEVON = .000 A.L.P.H. = .000  
 W.A.L. = .000 L.P. = 4.000

W.A.H.	BETA	Q	QF	QJ	ON	CAF	QJN	CSL	CT	W.P.L	CAB
.201	-12.000	.00000	.04900	-.00200	.00000	.05553	-.00180	.00000	.00000	.00300	.02137
.202	-6.010	.00190	.02890	-.00000	.00190	.05780	-.00190	.00000	.00000	.00300	.01899
.203	-4.000	.00290	.03760	.00000	.00290	.05786	.00000	.00000	.00000	.00300	.01804
.204	-2.000	.00710	.03740	.00000	.00710	.05758	-.00000	-.00000	.00000	.00300	.01874
.205	.000	.00990	.05760	.00000	.00990	.05551	.00000	-.00000	.00000	.00300	.01800
.206	.000	.00990	.05980	.00000	.00990	.05324	.00000	-.00000	.00000	.00300	.01879
.207	.000	.00990	.06470	.00000	.00990	.04515	.00000	-.00000	.00000	.00300	.01718
.208	.000	.00990	.07510	.00000	.00990	.03463	.00000	-.00000	.00000	.00300	.01891
.209	.000	.00990	.08600	.00000	.00990	.02518	.00000	-.00000	.00000	.00300	.02287
.210	.000	.00990	.10240	.00000	.00990	.01649	.00000	-.00000	.00000	.00300	.00004
.211	.000	.00990	.12490	.00000	.00990	.00829	.00000	-.00000	.00000	.00300	.00000
.212	.000	.00990	.15400	.00000	.00990	.00077	.00000	-.00000	.00000	.00300	.00000
.213	.000	.00990	.18470	.00000	.00990	-.00231	.00000	-.00000	.00000	.00300	.00000
.214	.000	.00990	.21510	.00000	.00990	-.00467	.00000	-.00000	.00000	.00300	.00000
.215	.000	.00990	.24510	.00000	.00990	-.00697	.00000	-.00000	.00000	.00300	.00000
.216	.000	.00990	.27450	.00000	.00990	-.00919	.00000	-.00000	.00000	.00300	.00000
.217	.000	.00990	.30340	.00000	.00990	-.01121	.00000	-.00000	.00000	.00300	.00000
.218	GRADIENT	.00000	-.00000	.00000	.00000	-.00000	.00000	-.00000	.00000	.00000	.00000

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB B16C507F1J7612J67V5X10

(RDN333) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES YMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B-FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 333/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CL	COF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.57490	.11400	.00030	.56610	.00832	-.00980	.01710	.27300	.65970	.02369
.201	-8.030	.56820	.11730	.00000	.58000	.01273	-.00750	.01370	.17690	.65690	.01965
.201	-4.020	.56920	.12180	.00000	.58150	.01702	-.00250	.00730	.04300	.65440	.01807
.201	-2.010	.57060	.12270	.01070	.58340	.01760	.00000	.00300	.04000	.65340	.01807
.201	.000	.57360	.12500	.01060	.58680	.01921	.00200	-.00150	-.04100	.65340	.01793
.201	2.010	.57210	.12320	.01100	.58500	.01785	.00410	-.00560	-.04600	.65310	.01823
.201	4.020	.57150	.12210	.00970	.58410	.01679	.00600	-.01000	-.04900	.65400	.01863
.201	6.040	.56910	.11950	.00620	.58140	.01488	.01040	-.01670	-.18200	.65610	.01992
.201	12.000	.57390	.11470	.00070	.58510	.00918	.01290	-.01970	-.28200	.65950	.02364
GRADIENT	.04 50		.00205	.00008	.00030	-.00001	.00105	-.00215	-.02149	-.00005	.00008

NR.701.0405 ORB B16C507F1J7612J67V5X10

(RDN334) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES YMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 B-FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 334/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CL	COF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.080	.81190	.21280	.00640	.83920	-.01331	-.01070	.02420	.26600	.65720	.02461
.201	-8.030	.81990	.22160	.01090	.84930	-.00686	-.00900	.01900	.17000	.65530	.02286
.201	-4.020	.81670	.22830	.01610	.84800	.00037	-.00430	.00930	.08200	.65310	.02053
.201	-2.080	.81950	.23090	.01650	.85140	.00212	-.00150	.00400	.04000	.65300	.02139
.201	.000	.82030	.23140	.01540	.85250	.00191	.00120	-.00130	.00000	.65340	.02227
.201	1.990	.82270	.23070	.01560	.85440	.00097	.00400	-.00650	-.04100	.65340	.02230
.201	4.000	.81630	.22830	.01630	.84960	-.00002	.00750	-.01210	-.08500	.65310	.02172
.201	8.030	.82250	.22430	.01180	.85250	-.00302	.01250	-.02110	-.17400	.65900	.02222
.201	12.080	.81820	.21530	.00880	.84600	-.01259	.01410	-.02640	-.26900	.65630	.02414
GRADIENT	.00032		-.00001	-.00004	.00031	-.00010	.00145	-.00265	-.02070	.00002	.00016

NR.701.0403 ORB B16C507F1J7G124B7V3X10

(R0N335) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

RUN NO. 335/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 16.0000 B.FLAP = -16.0000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = .0000  
 NACK/L = .0000 LIP = 4.0000

MACH	BETA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.93080	.28720	.01970	.98120	-.02890	-.01200	.02990	.25800	.63270	.02318
.201	-8.040	.94560	.29830	.02060	.99160	-.02087	-.01190	.02340	.16700	.63250	.02462
.201	-4.030	.95170	.30570	.02380	.99930	-.01591	-.00680	.01160	.08200	.63140	.02396
.201	-2.020	.95750	.30810	.02170	1.00370	-.01563	-.00260	.00340	.04000	.63220	.02649
.201	.000	.95740	.30730	.02330	1.00540	-.01646	.00090	-.00170	.01200	.63160	.02642
.201	2.010	.94710	.30290	.02650	.99420	-.01709	.00420	-.00950	-.03400	.63040	.02625
.201	4.000	.94130	.30020	.02860	.98790	-.01771	.00840	-.01680	-.07400	.64950	.02485
.201	6.050	.94830	.29730	.02240	.99360	-.02279	.01500	-.02610	-.17000	.63190	.02482
.201	12.060	.94990	.28970	.01700	.99270	-.02037	.01770	-.03090	-.26900	.63380	.02523
.201	GRADIENT	-.00155	-.00081	.00072	-.00172	-.00025	.00185	-.00357	-.01921	-.00026	.00008

## REFERENCE DATA

SREF = 4.4119 50.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0403 SCALE

RUN NO. 336/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .0000 B.FLAP = -16.0000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = 10.0000  
 NACK/L = .0000 LIP = 4.0000

MACH	ALPHA	CL	CD	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.120	-.12810	.07340	-.00280	-.13310	.06407	.01110	.03330	-.04000	.63220	.01764
.201	-2.020	-.02770	.06840	-.00030	-.03010	.06743	.01050	.03430	-.04300	.61590	.01729
.201	-.980	.02080	.06680	.00050	.01960	.06719	.01030	.03490	-.04500	.63050	.01761
.201	.040	.06340	.06640	.00190	.06930	.06642	.00970	.03320	-.04600	.64960	.01725
.201	1.070	.12010	.06670	.00310	.12130	.06450	.00920	.03340	-.04700	.65060	.01741
.201	2.120	.16870	.06810	.00410	.17040	.06188	.00860	.03360	-.04650	.65110	.01710
.201	4.170	.26240	.07300	.00790	.26700	.05375	.00750	.03610	-.04900	.64920	.01725
.201	6.250	.35750	.08350	.01060	.36450	.04416	.00630	.03640	-.05200	.64940	.01685
.201	8.320	.46220	.10200	.01080	.47220	.03435	.00530	.03810	-.05800	.65170	.01747
.201	10.400	.56260	.12930	.01370	.57670	.02561	.00320	.03860	-.05800	.65140	.01814
.201	12.480	.66610	.16890	.01480	.68690	.02091	.00190	.03910	-.05800	.65220	.01965
.201	14.520	.76090	.21280	.01650	.79000	.01514	.00050	.03870	-.05600	.65250	.02110
.201	16.620	.85470	.26070	.02040	.89360	.00529	-.00110	.03720	-.05600	.65170	.02297
.201	18.700	.93860	.31060	.02950	.98870	-.00666	-.00270	.03550	-.05300	.64920	.02347
.201	20.760	.98940	.35810	.04580	1.05210	-.01599	-.00380	.02870	-.04100	.64430	.02934
.201	22.790	1.01300	.40690	.05950	1.09150	-.01730	-.00140	.02060	-.02800	.64040	.03424
.201	24.820	1.01060	.45690	.06870	1.10930	-.00981	.00220	.01670	-.02000	.63770	.04080
.201	GRADIENT	.04720	-.00006	.00125	.04836	-.00126	-.00044	.00033	-.00101	-.00049	-.00003

NR.701.0405 ORB 816C50TF1J7612407E1845X10

(R06037) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 56.FT. YORP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZORP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -15.000 AILRON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 337/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.260	-.43340	.09870	.12450	-.43950	.06616	.00040	-.00200	-.00800	.76180	.01165
.201	-2.190	-.33230	.08400	.12460	-.33330	.07130	.00090	-.00090	-.00800	.79330	.01154
.201	-1.150	-.26110	.07860	.12590	-.26260	.07297	.00090	-.00100	-.00800	.81990	.01135
.201	-.120	-.23130	.07330	.12580	-.23140	.07282	.00100	-.00060	-.00900	.85500	.01162
.201	.930	-.17910	.06900	.12620	-.17800	.07187	.00110	-.00070	-.00800	.91430	.01152
.201	1.930	-.12920	.06540	.12670	-.12690	.06983	.00110	-.00050	-.00900	1.01830	.01137
.201	4.010	-.02330	.06110	.12690	-.01900	.06265	.00130	-.00050	-.01000	3.05540	.01184
.201	6.100	.07840	.06170	.12960	.08460	.05307	.00130	-.00050	-.00800	.11070	.01182
.201	8.160	.18015	.06900	.13340	.18810	.04273	.00120	-.00060	-.00800	.40540	.01199
.201	10.220	.27100	.08210	.14090	.28130	.03274	.00110	-.00090	-.00750	.48020	.01249
.201	12.320	.37850	.10930	.14420	.39310	.02604	.00120	-.00060	-.00500	.52830	.01283
.201	14.390	.46250	.14790	.14130	.50450	.02316	.00130	-.00100	-.00400	.55930	.01492
.201	16.460	.58470	.18890	.14240	.61430	.01553	.00120	-.00120	-.00200	.57670	.01608
.201	18.540	.67630	.23220	.14800	.71500	.00509	.00060	-.00080	-.00100	.58560	.01710
.201	20.630	.75100	.27740	.15740	.80060	-.00502	.00030	-.00180	.00300	.58940	.01828
.201	22.690	.81560	.32870	.16070	.87930	-.01131	.00320	-.00290	.00100	.59440	.02266
.201	24.710	.83670	.38230	.15700	.92200	-.00282	.00790	-.00430	.00500	.59880	.02696
GRADIENT		.04954	-.00455	.00033	.05080	-.00042	.00007	.00015	-.00023	.22432	.00001



NR. 701.0405 CH8 816C50771J7612407E18V31G

(R06338) ( 23 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. YMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = 15.000 AIRLON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 338/ 0 RV/L = 1.44 GRADIENT INTERVAL = -3.00/ 5.00

MAON	ALPHA	CL	CDP	CLN	ON	CAF	CLN	CSL	CY	KCP/L	CAB
.201	-3.950	.14350	.06720	-.12370	.14060	.07709	.00120	-.00150	-.00200	.97560	.02176
.201	-1.870	.23660	.07070	-.12030	.23610	.07855	.00110	-.00150	-.00200	.84280	.02140
.201	-.830	.28630	.07360	-.11790	.28520	.07777	.00110	-.00140	-.00200	.80830	.02116
.201	.160	.32990	.07680	-.11620	.33020	.07374	.00110	-.00150	-.00100	.78620	.02139
.201	1.220	.37720	.08170	-.11400	.37890	.07364	.00120	-.00150	.00000	.76790	.02132
.201	2.250	.41830	.08660	-.11100	.42140	.07023	.00120	-.00150	-.00100	.75450	.02139
.201	4.300	.50660	.10160	-.10670	.51470	.06321	.00140	-.00110	-.00300	.73430	.02062
.201	6.370	.60360	.12260	-.10670	.61550	.05455	.00130	-.00210	.00000	.72221	.02079
.201	8.460	.72930	.15440	-.11350	.74410	.04513	.00090	-.00160	-.00100	.71470	.02144
.201	10.550	.81910	.19330	-.10760	.84060	.03999	.00100	.00040	.00000	.70590	.02216
.201	12.610	.91450	.24010	-.10230	.94490	.03450	.00030	.00000	.00000	.69880	.02293
.201	14.690	1.00660	.29790	-.09720	1.04750	.02612	.00030	-.00020	.00200	.69330	.02446
.201	16.770	1.09100	.34520	-.08990	1.14420	.01557	-.00010	.00010	.00200	.68810	.02598
.201	18.840	1.16430	.40170	-.07690	1.23160	.00421	.00020	-.00170	.00500	.68240	.02891
.201	20.890	1.19210	.45670	-.05610	1.27660	.00167	.00060	-.00340	.01800	.67570	.03367
.201	22.860	1.18170	.50270	-.03050	1.28420	.00351	.00680	-.00610	.00700	.66850	.03863
.201	24.900	1.15220	.54510	-.00900	1.27460	.00917	.00560	-.00070	-.00500	.66250	.04426
.201	GRADIENT	.04399	.03410	.00209	.04534	-.00176	.00003	.00003	.00000	-.02737	-.00010

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL 701

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MR. 701.0403 ORB 816C50771J7612M7E18V3X10

(R0N0339) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0403 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = 5.000 AILRON = .000  
 NACVL = .000 LIP = 4.000

RUN NO. 339/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	QL	QDF	QLH	ON	CAP	CLN	CSL	CY	XCP/L	CAB
.201	-4.050	-.02780	.06320	-.04810	-.03220	.06110	.00060	-.02220	-.00400	.14600	.01840
.201	-1.980	.07150	.06100	-.04470	.06940	.06346	.00070	-.02290	-.00400	.89100	.01866
.201	-.920	.12000	.06190	-.04330	.11900	.06344	.00080	-.02220	-.00400	.79070	.01846
.201	.090	.17110	.06210	-.04290	.17120	.06192	.00070	-.02210	-.00390	.74990	.01897
.201	1.130	.21950	.06460	-.04180	.22070	.06025	.00080	-.02220	-.00390	.72790	.01833
.201	2.150	.26520	.06660	-.04120	.26750	.05666	.00090	-.02230	-.00390	.71390	.01868
.201	4.240	.36140	.07570	-.03710	.36600	.04978	.00090	-.02210	-.00390	.69640	.01815
.201	6.290	.45460	.08950	-.03460	.46170	.04917	.00100	-.02210	-.00400	.68690	.01821
.201	8.370	.56030	.11220	-.03540	.57070	.02949	.00110	-.02230	-.00290	.68220	.01862
.201	10.440	.66480	.14530	-.03320	.68010	.02244	.00100	-.02230	-.00190	.67750	.01975
.201	12.540	.76310	.18830	-.03000	.78580	.01798	.00090	-.00170	.00000	.67370	.02124
.201	14.590	.85540	.23350	-.02510	.88670	.01039	.00050	-.00160	.00000	.67010	.02228
.201	16.680	.95130	.28450	-.02080	.99290	-.00756	.00050	-.00170	.00000	.66750	.02484
.201	18.750	1.03320	.33710	-.01310	1.08680	-.01284	.00020	-.00230	.00200	.66430	.02768
.201	20.820	1.08380	.38300	.00290	1.15150	-.02110	.00150	-.00260	.01100	.65530	.03163
.201	22.840	1.09760	.44010	.01890	1.18230	-.02051	.00120	-.00700	.00800	.65420	.03693
.201	24.850	1.07520	.48640	.03480	1.17820	-.00976	.00920	-.00490	.00000	.64940	.04219
.201	GRADIENT	.04706	.00148	.00107	.04814	-.00152	.00002	-.00000	.00016	.04129	-.00003

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL T01

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NR.T01.0405 ORB 810C507F1J7A87V5X10

(R04040) ( 23 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLARE = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ATLON = .000  
 NACK/L = .000 LIP = 4.000

RUN NO. 340/ 0 RML = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

ACH	ALPHA	CL	COF	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.090	-1.13920	.03760	.00380	-.14150	.02760	.00080	-.00190	-.00400	.66960	.01616
.201	-2.013	-.03930	.03330	.00520	-.03950	.03202	.00080	-.00180	-.00400	.70770	.01645
.201	-.990	.01700	.03240	.00690	.01140	.03267	.00090	-.00160	-.00400	.44330	.01656
.201	.060	.06240	.03260	.00810	.06240	.03262	.00090	-.00170	-.00300	.61320	.01660
.201	.11390	.03390	.03390	.00940	.11410	.03182	.00100	-.00160	-.00400	.63030	.01656
.201	.16290	.03590	.03590	.01020	.16380	.02995	.00100	-.00150	-.00300	.63750	.01667
.201	.2110	.03990	.04300	.01300	.26670	.02375	.00090	-.00160	-.00300	.64230	.01669
.201	.26390	.03490	.03490	.01500	.36770	.01490	.00110	-.00170	-.00300	.64520	.01630
.201	.31350	.03540	.03540	.01760	.47120	.00545	.00120	-.00160	-.00400	.64650	.01666
.201	.37970	.02990	.02990	.01870	.58480	-.00284	.00070	-.00140	-.00300	.64890	.01733
.201	.4420	.02970	.02970	.02060	.69480	-.00639	.00090	-.00060	-.00300	.64930	.01907
.201	.5110	.07970	.07970	.02270	.79680	-.01166	.00080	-.00080	-.00100	.64970	.02132
.201	.5790	.07810	.07810	.02520	.91020	-.02094	.00020	-.00080	.00000	.65000	.02419
.201	.6440	.06720	.06720	.03040	1.01020	-.03268	.00010	-.00110	.00100	.64910	.02615
.201	.70810	.05790	.05790	.04300	1.09330	-.04487	.00120	-.00430	.00600	.64580	.02903
.201	.76920	.04690	.04690	.05490	1.14900	-.04755	.00410	-.00570	.00600	.64260	.03455
.201	.8260	.03700	.03700	.06580	1.16110	-.04038	.00860	-.00510	.00100	.63960	.04107
.201	.8790	.02700	.02700	.07665	.04929	-.00047	.00002	-.00004	.00023	-.00141	.00006
.201	.9271	.01671	.01671	.08714	.00114						
.201	.9700	.00665	.00665	.09765							

GRADIENT

(R00041) ( 23 JUN 73 )

NR.T01.0405 008 816C507F1487V5X9

PARAMETRIC DATA

REFERENCE DATA

BETA = .000  
RUDDER = .000  
ELEVON = .000  
S.FLAP = -10.000  
R.FLARE = .000  
AILRON = .000

SREF = 4.4119 50.07. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405 SCALE

RUN NO. 341/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	UN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.070	-1.1200	.03020	.01610	-.11390	.02223	-.00300	.00230	.01200	.71070	.01601
.201	-2.010	-.01760	.02610	.01470	-.01890	.02552	-.00380	.00130	.01000	.94320	.01608
.201	-.060	.03000	.02500	.01450	.02960	.02555	-.00330	.00100	.00900	.48420	.01612
.201	.040	.07660	.02390	.01440	.07660	.02550	-.00300	.00080	.00800	.59250	.01602
.201	1.090	.12500	.02650	.01390	.12550	.02413	-.00290	.00060	.00900	.61990	.01616
.201	2.170	.16930	.02620	.01350	.17020	.02199	-.00260	.00010	.00900	.63150	.01603
.201	4.170	.26490	.03430	.01310	.26670	.01497	-.00230	-.00010	.00800	.64220	.01580
.201	6.260	.36290	.04390	.01140	.36560	.00407	-.00210	-.00030	.00800	.64870	.01619
.201	8.320	.46010	.05920	.01090	.46380	-.00600	-.00200	-.00060	.00700	.65150	.01605
.201	10.400	.56460	.08070	.01020	.56990	-.02251	-.00190	-.00090	.00600	.65350	.01716
.201	12.510	.67530	.11160	.00970	.68350	-.03713	-.00210	-.00090	.00600	.65370	.01796
.201	14.590	.79500	.15370	.00130	.80810	-.05151	-.00130	-.00170	.00800	.65940	.01969
.201	16.640	.91260	.21320	-.00970	.93600	-.05514	.00150	.00270	.00800	.66370	.02223
.201	18.750	1.01390	.29260	-.01790	1.05420	-.04895	.00210	.00340	.00100	.66610	.02615
.201	20.800	1.10870	.36940	-.02620	1.16760	-.04845	.00180	-.00400	.01000	.66830	.03024
.201	22.690	1.18620	.44370	-.02690	1.26800	-.05160	.00230	-.00750	.01500	.66760	.03396
.201	24.980	1.23260	.52100	-.01890	1.35370	-.05627	.00360	-.00910	.01800	.66300	.03876
.201	GRADIENT	.04572	.00051	-.00035	.04616	-.07067	.00031	-.00029	-.00042	-.01779	-.00002

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 ORB 816C50771J9-87V5X10

(R00342) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 15.2000 INCHES  
 SCALE = .0405 SCALE

BETA = .000 B-FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALURON = .000  
 NACK/L = .000 LIP = 4.000

PARAMETRIC DATA

RUN NO. 342/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.080	-1.12790	.03830	.01030	-.13030	.02909	-.00410	.00160	.01000	.66850	.01579
.201	-1.990	-.03080	.03340	.01060	-.03170	.03232	-.00370	.00100	.01000	.78300	.01630
.201	-.970	.02000	.03240	.01140	.01950	.03277	-.00340	.00100	.00800	.49050	.01615
.201	.080	.06640	.03290	.01180	.06640	.03229	-.00320	.00060	.00900	.59670	.01632
.201	1.070	.11410	.03320	.01240	.11470	.03111	-.00310	.00070	.00800	.62100	.01619
.201	2.120	.16180	.03450	.01290	.16300	.02847	-.00300	.00050	.00600	.63180	.01645
.201	4.270	.26180	.03990	.01340	.26410	.02162	-.00280	.00010	.00500	.64170	.01629
.201	6.280	.36040	.05090	.01270	.36380	.01113	-.00250	-.00020	.00800	.64740	.01644
.201	8.340	.46210	.06770	.01400	.46710	-.00001	-.00230	-.00010	.00800	.65140	.01683
.201	10.400	.56210	.08280	.01360	.57550	-.01129	-.00200	.00000	.01000	.65180	.01751
.201	12.490	.67410	.12510	.11550	.68520	-.02347	-.00100	.00000	.01100	.65240	.01859
.201	14.570	.78200	.16410	.01580	.79810	-.03791	-.00280	.00000	.01100	.65240	.02003
.201	16.680	.89100	.21110	.01490	.91420	-.05520	-.00150	-.00040	.00900	.65100	.02247
.201	18.750	.99720	.26460	.00590	1.02050	-.03786	-.00090	.00050	.00800	.65060	.02594
.201	20.800	1.08270	.36090	.00660	1.12100	-.04025	-.00080	.00050	.01100	.65780	.02914
.201	22.870	1.11350	.42450	.00670	1.19170	-.04168	-.00120	.00050	.00700	.65490	.03410
.201	24.910	1.13610	.46150	.00550	1.23320	-.04208	-.00090	.00070	.00800	.65140	.04119
.201	GRADIENT	.04697	.00001	.00001	.04754	-.00091	.00016	-.00017	-.00019	-.00702	.00005

DATE 27 SEP 73 TABULATED SOURCE FORCE DATA-NAAL 701

NR. 701.0405 ORB 816C307F1J5G12L87V5X10

REFERENCE DATA

SREF = 4.4119 50.FT. 100P = 45.9974 INCHES  
 LREF = 19.2999 INCHES 100P = 10.0000 INCHES  
 BREF = 37.9349 INCHES 200P = 15.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 345/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	CL	CF	QLN	ON	CAF	QLN	CSL	CY	YCP/L	CAB
.201	-4.070	-1.1100	.08750	.00410	-.11590	.05948	-.00450	.02000	.01100	.67290	.01540
.201	-2.000	-.01880	.08250	.00800	-.02100	.06181	-.00390	.00120	.00900	.76290	.01816
.201	-.920	.02930	.08020	.00630	.02830	.06074	-.00320	.00090	.00600	.7920	.01614
.201	.060	.07420	.05990	.00690	.07430	.05968	-.00280	.00050	.00600	.7630	.01504
.201	1.140	.12110	.05970	.00690	.12220	.05735	-.00240	.00010	.00600	.63960	.01591
.201	2.170	.16720	.08030	.00720	.17120	.05587	-.00200	-.00010	.00500	.64470	.01516
.201	4.190	.26100	.08450	.00830	.26500	.04528	-.00160	-.00090	.00400	.64860	.01562
.201	6.290	.33690	.07500	.00870	.36270	.03365	-.00130	-.00050	.00300	.65130	.01597
.201	8.320	.45330	.06800	.00960	.46320	.02123	-.00090	-.00010	.00200	.65240	.01637
.201	10.430	.55980	.11160	.01090	.57050	.00845	-.00100	-.00110	.00500	.65310	.01694
.201	12.480	.66420	.14150	.01343	.67910	-.00353	-.00100	-.00140	.00700	.65280	.01643
.201	14.570	.76640	.17770	.01590	.78640	-.02068	-.00070	-.00160	.00700	.65270	.01917
.201	16.680	.87240	.22350	.01430	.89880	-.03635	-.00040	-.00190	.00500	.65420	.02200
.201	18.750	.96690	.30680	.00290	1.02370	-.02336	.00050	-.00050	.00700	.65690	.02455
.201	20.790	1.04000	.36500	.01130	1.10190	-.02787	.00070	.00080	.00600	.65630	.02946
.201	22.870	1.08320	.42930	.01590	1.16490	-.02544	.00080	.00180	.00400	.65380	.03344
.201	24.880	1.09280	.47840	.03310	1.18270	-.02530	-.00230	.00340	-.00200	.65000	.04079
GRADIENT		.04501	-.03039	.07046	.04805	-.00175	.00337	-.00021	-.00074	-.00636	-.00008

NR. 701.0405 ORB 816C307F1J5G12L87V5X10

(RDS44) ( 25 JUN 73 )

REFERENCE DATA

SREF = 4.4119 50.FT. 100P = 45.9974 INCHES  
 LREF = 19.2999 INCHES 100P = 10.0000 INCHES  
 BREF = 37.9349 INCHES 200P = 15.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 344/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

NAOH	BETA	CL	CF	QLN	ON	CAF	QLN	CSL	CY	YCP/L	CAB
.201	-4.030	.08070	.05910	.00190	.08080	.05503	-.00320	.02000	.00800	.65310	.01669
.201	-.010	.07900	.05910	.00930	.07900	.05902	-.00080	.00090	.00400	.65360	.01623
.201	4.010	.07910	.05920	.00300	.07910	.05517	.00290	-.00010	-.00800	.64450	.01723
.201	8.030	.07870	.04670	-.00320	.07880	.04665	.00450	-.00010	-.00800	.67170	.01935
.201	12.060	.08540	.03780	-.00780	.08550	.03766	.00300	-.00010	-.00800	.69340	.02310
GRADIENT		-.00095	.00001	.00019	-.00096	.00002	.00071	-.00073	-.00239	-.00103	.00007

ALPHA = .000  
 RUDER = .000  
 ELEVON = .000  
 MAC/L = .000

YCP/L = -16.070  
 RFLARE = .000  
 AILRON = .070  
 LIP = 4.070

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL 731

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NR.701.0403 ORB 816C507F1J5612W87V5X10

(R05G45) ( 23 JUN 73 )

## REFERENCE DATA

3R07 = 4.4119 36.FT. 10R0P = 43.5974 INCHES  
 1R07 = 19.2799 1 INCHES 1MR0P = .0000 INCHES  
 8R07 = 37.9349 INCHES 2MR0P = 16.2000 INCHES  
 SCALE = .0403 SCALE

ALPHA = 5.000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACA/L = .000 LIP = 4.000

RUN NO. 345/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.000	.31290	.06470	.00460	.31790	.03000	-.00390	.00360	.09200	.65470	.01714
.201	-.010	.31170	.06490	.00760	.31660	.03595	-.00030	-.00120	.00400	.65190	.01532
.201	3.990	.30660	.06490	.00590	.31340	.03644	.00330	-.00620	-.06600	.65310	.01728
.201	8.040	.30620	.05460	.00030	.31720	.03059	.00710	-.01060	-.18200	.65990	.01943
.201	12.090	.31160	.05320	-.00490	.31540	.02470	.00740	-.01260	-.27500	.66560	.02391
GRADIENT	-.00051	.00001	.00001	.00016	-.00051	.00006	.00790	-.00122	-.02219	-.00060	.00002

NR.701.0403 ORB 816C507F1J5612W87V5X10

(R05G46) ( 23 JUN 73 )

## REFERENCE DATA

3R07 = 4.4119 36.FT. 10R0P = 43.5974 INCHES  
 1R07 = 19.2799 1 INCHES 1MR0P = .0000 INCHES  
 8R07 = 37.9349 INCHES 2MR0P = 16.2000 INCHES  
 SCALE = .0403 SCALE

ALPHA = 10.000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 NACA/L = .000 LIP = 4.000

RUN NO. 346/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.040	.36040	.10950	.00860	.37100	.03629	-.00340	.00670	.09000	.65440	.01771
.201	-.010	.36110	.11310	.01050	.37240	.00971	-.00040	-.00110	.00600	.65330	.01667
.201	4.000	.35990	.10960	.00930	.37060	.00666	.00350	-.00940	-.06100	.65410	.01853
.201	8.040	.35750	.10620	.00410	.36790	.00366	.00790	-.01630	-.17900	.65730	.02027
.201	12.040	.35780	.10230	-.00070	.36710	-.00012	.00670	-.02700	-.27400	.66090	.02367
GRADIENT	-.00006	.00004	.00004	.00006	-.00005	.00005	.00060	-.00200	-.02127	-.00004	.00010

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAAL 701

NR.701.0405 ORB B16C507F1J5612487V5X10

(RDN347) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0404 SCALE

PARAMETRIC DATA

ALPHA = 15.0000 B.FLAP = -16.0000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = .0000  
 MACX/L = .0000 LIP = 4.0000

RUN NO. 347/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CLF	CLN	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.040	.61430	.19910	.01390	.83790	-.02720	-.00410	.00970	.08900	.65400	.01981
.201	-.020	.61700	.19960	.01520	.84060	-.02751	-.00000	-.00140	.00900	.65340	.02053
.201	3.990	.61210	.19890	.01540	.83570	-.02686	.00410	-.01250	-.07500	.65330	.01911
.201	6.043	.61370	.19490	.00930	.83610	-.03129	.00860	-.02190	-.16700	.65590	.02170
.201	12.060	.61970	.18680	.00480	.83160	-.03619	.00930	-.02710	-.26300	.65790	.02404
GRADIENT	-.00027	-.00002	-.00019	-.00027	.00004	.00102	-.00276	-.02042	-.00009	.00004	

NR.701.0405 ORB B16C507F1J5612487V5X10

(RDN348) ( 23 JUN 75 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

PARAMETRIC DATA

ALPHA = 16.0000 B.FLAP = -16.0000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = .0000  
 MACX/L = .0000 LIP = 4.0000

RUN NO. 348/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CLF	CLN	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.030	.95610	.29820	.00380	1.00130	-.02411	-.00760	.00690	.09200	.65680	.02237
.201	.000	.97260	.30530	.00330	1.01920	-.02291	.00020	-.00060	.00700	.65880	.02553
.201	4.000	.94300	.29160	.01140	.98670	-.02595	.01140	-.01450	-.08900	.65580	.02442
.201	6.060	.94090	.29080	.00550	.98450	-.02613	.01630	-.01010	-.18800	.65790	.02565
.201	12.070	.93620	.28210	-.00040	.97720	-.03273	.01590	-.01530	-.28300	.66010	.02620
GRADIENT	-.00162	-.00062	-.00032	-.00161	.00023	.00237	-.00142	-.02254	-.00012	.00023	



(R2XG49) ( 23 JUN 73 )

NR.701.0405 ORB B16C507E1.0612W4E18V3X10

## REFERENCE DATA

SREF = 4.4119 90.FT. XREF = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9119 INCHES ZREF = 16.7000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 R.FLAP = .000  
 ELEVON = 5.000 AIRCUT = .000  
 NACX/L = .000 LIP = 4.000

RUN NO. 349/ 0 PMVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CL	CLF	CLM	CN	CAF	CLN	C.L	CY	XCP/L	CAB
.201	-4.020	-1.00330	.06130	-.04470	-.00960	.06084	-.00090	-.00060	.00100	-1.00970	.01736
.201	-1.960	.08720	.09930	-.04470	.00510	.06233	-.00110	-.00070	.00300	.84850	.01788
.201	-1.930	.13350	.09950	-.04380	.13250	.06168	-.00100	-.00070	.00300	.77870	.01778
.201	-1.00	.17950	.06050	-.04320	.17960	.06018	-.00130	-.00100	.00500	.74640	.01741
.201	1.120	.22500	.06210	-.04240	.22620	.05774	-.00110	-.00090	.00400	.72730	.01727
.201	2.170	.27600	.06440	-.04200	.27480	.05405	-.00110	-.00090	.00400	.71480	.01732
.201	4.240	.35490	.07200	-.04070	.36910	.04481	-.00110	-.00090	.00500	.69980	.01739
.201	6.290	.45660	.08430	-.03980	.46510	.03350	-.00120	-.00080	.00500	.69070	.01715
.201	8.380	.55700	.10440	-.03950	.56820	.02178	-.00150	-.00070	.00600	.68490	.01757
.201	10.440	.66190	.13120	-.03830	.67470	.00915	-.00160	-.00110	.00700	.68030	.01826
.201	12.520	.76240	.16430	-.13510	.77990	-.07495	-.00150	-.00130	.00800	.67610	.01958
.201	14.600	.86210	.20390	-.03210	.88160	-.01999	-.00130	-.00150	.00900	.67300	.02076
.201	16.690	.96780	.25190	-.03420	.98590	-.03504	-.00050	-.00250	.00900	.67230	.02334
.201	18.830	1.07090	.33980	-.04400	1.12230	-.02416	-.00060	-.00150	.01000	.67400	.02824
.201	20.860	1.11970	.47410	-.03420	1.15820	-.02114	-.00050	-.00040	.01000	.67030	.03265
.201	22.890	1.16030	.59600	-.02320	1.25160	.01875	.00010	.00220	.00200	.66660	.03842
.201	24.910	1.15630	.81450	-.00340	1.26710	-.02137	-.00030	.00710	-.00800	.66090	.04499
.201	GRADIENT	.04481	.00128	.00053	.04286	-.00055	-.00000	-.00004	.00044	.15014	-.00003

NR. T01.0405 ORB B16C5071J5612487E18V3X10

(R00350) ( 1 1 3 )

## REFERENCE DATA

SAP = 4.4119 50.FT. XRP = 43.9974 INCHES  
 LRF = 19.2999 INCHES YRP = .0000 INCHES  
 BRF = 37.9349 INCHES ZRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 R.FLARE = .000  
 ELEVON = 15.000 AILLEN = .000  
 MACX/L = .000 LIP = 4.500

RUN NO. 350/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-3.920	.17410	.06930	-.12940	.16890	.08111	-.00090	.00000	.00500	.93500	.00037
.201	-1.860	.26450	.07500	-.12820	.26200	.06162	-.00130	.00000	.00500	.83350	.00045
.201	-.810	.30960	.07590	-.12750	.30880	.07995	-.00100	.00010	.00500	.80820	.00083
.201	.200	.35290	.07820	-.12620	.35280	.07605	-.00100	-.00090	.00600	.78840	.00065
.201	1.210	.39420	.08350	-.12460	.39390	.07516	-.00100	-.00040	.00650	.77290	.00012
.201	2.260	.43690	.08880	-.12220	.44000	.07152	-.00100	-.00050	.00600	.75980	.00011
.201	4.310	.52250	.10140	-.12000	.52860	.06190	-.00080	-.00100	.00600	.74140	.00033
.201	6.370	.61750	.12000	-.11890	.62690	.03074	-.00080	-.00110	.00700	.72810	.00037
.201	8.480	.73390	.14940	-.12610	.74790	.03953	-.00130	-.00040	.00700	.72050	.00038
.201	10.530	.83750	.18340	-.12440	.85690	.02720	-.00130	-.00070	.00200	.71210	.00106
.201	12.640	.93310	.22280	-.12070	.96120	.01277	-.00130	-.00120	.00600	.70900	.00159
.201	14.710	1.03320	.26980	-.11840	1.06790	-.00147	-.00010	-.00170	.00700	.69970	.00271
.201	16.780	1.12900	.33790	-.11850	1.17650	-.00927	.00420	-.00140	.00000	.69610	.00355
.201	18.830	1.18720	.41750	-.11820	1.25820	.01101	-.00060	.00170	.00300	.69370	.00325
.201	20.890	1.23980	.48260	-.10420	1.33040	.00867	-.00040	.00120	.00700	.68810	.00379
.201	22.930	1.26000	.54010	-.08160	1.37090	.00634	-.00100	.00340	.00100	.68130	.04370
.201	24.940	1.25000	.57230	-.04890	1.35660	.00013	-.00090	.00890	-.01100	.67290	.05076
.201	GRADIENT	.04221	.00399	.00122	.04359	-.00236	.00001	-.00012	.00016	-.00228	-.00006

NR. 751.0405 OF 3 B16C5077135612407E18V5110

UNION511 ( 23 JUN 73 )

## REFERENCE DATA

SPOT = 4.4119 INCHES  
 XOFF = 19.2079 INCHES  
 YOFF = 37.9349 INCHES  
 SCALE = 1.000 SCALE

## PARAMETRIC DATA

BETA = .000  
 SLOPE = .000  
 ELUTION = -13.770  
 XOFF = .000  
 YOFF = .000  
 SCALE = 4.000

RUN NO. 351/ 0 PUL = 1.44 GRADIENT INTERVAL = -5.07/ 5.00

WACH	ALPHA	CL	COF	CLM	ON	CAF	CLM	CSL	CP	XCP/L	CAB
.201	-4.820	-1.23700	.05390	.12440	-1.40130	.06398	-1.00110	-1.00120	.00000	.77080	.01061
.201	-2.170	-.30990	.06040	.12710	-1.31220	.06225	-1.00100	-1.00110	.00000	.80580	.01032
.201	-1.130	-.28200	.07420	.12790	-1.26340	.06603	-1.00100	-1.00070	.00000	.83360	.01124
.201	-.080	-.21550	.06660	.12820	-1.21590	.06934	-1.00090	-1.00050	.00000	.87340	.01349
.201	.310	-.17700	.06930	.12920	-1.15890	.06771	-1.00080	-1.00040	.00000	.91420	.01064
.201	1.990	-.12400	.06120	.13050	-1.12180	.06542	-1.00080	-1.00030	.00000	1.04440	.01131
.201	4.020	-.07130	.05570	.13170	-1.02700	.05874	-1.00080	-1.00030	.00000	2.45960	.01071
.201	6.100	.00660	.05560	.13460	.07210	.04944	-1.00050	-1.00030	.00000	-1.00370	.01163
.201	8.190	.15940	.05920	.13390	.16990	.03710	-1.00050	-1.00030	.00000	.35940	.01146
.201	10.240	.21530	.07280	.14220	.26510	.02924	-1.00080	-1.00020	.00000	.46610	.01221
.201	12.320	.35440	.09040	.14820	.36590	.01276	-1.00080	-1.00020	.00000	.51440	.01309
.201	14.390	.49940	.11590	.15240	.47000	-.01623	-1.00090	-1.00020	.00000	.54390	.01448
.201	16.400	.64200	.14840	.15390	.59110	-.01793	-1.00090	-1.00020	.00000	.55910	.01573
.201	18.590	.85590	.20340	.14370	.69960	-.01916	-1.00090	-1.00020	.00000	.58990	.01900
.201	20.690	.76160	.26990	.14090	.76180	-.01628	-1.00090	-1.00010	.00000	.5790	.02135
.201	22.690	.82630	.32110	.14900	.8190	-.02243	-1.00090	-1.00020	.00000	.58290	.02310
.201	24.710	.86860	.37390	.14820	.8490	-.02911	-1.00090	-1.00020	.00000	.59500	.03109
.201	26.810	.84450	-.02110	.14740	.84370	-.03066	-1.00090	-1.00020	.00000	.58410	.03514

NR.701.0405 OFB 816C507F1J5612487V5X10

(R00052) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36.FT. XREF = 43.5974 INCHES  
 YREF = 19.2999 INCHES YREF = .0000 INCHES  
 ZREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .0000 B.FLAP = -18.000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = 10.000  
 NACK/L = .0000 LIP = 4.000

RUN NO. 392/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CD	CLM	CLN	CAF	ON	CSL	CY	P/L	CAB
.201	-4.410	-.09760	.07050	-.00400	-.10240	.06353	.00860	.03570	-.03400	.0390	.01769
.201	-2.310	-.00490	.06700	-.00270	-.00750	.06686	.00790	.03650	-.03700	.52520	.01763
.201	-.970	.03950	.06350	-.00170	.03840	.06600	.00760	.03700	-.03300	.67600	.01822
.201	.067	.06580	.06490	-.00100	.06580	.06483	.00710	.03750	-.03200	.66430	.01777
.201	1.070	.13020	.06480	-.00010	.13140	.06234	.00660	.03820	-.03100	.66030	.01720
.201	2.120	.17650	.06620	.00070	.17680	.05967	.00620	.03860	-.04200	.65840	.01765
.201	4.160	.25820	.07050	.00330	.27270	.05080	.00510	.03900	-.04400	.65560	.01768
.201	6.240	.33790	.07960	.00490	.36420	.04030	.00400	.03970	-.04600	.65510	.01754
.201	8.310	.42480	.09630	.00600	.46390	.02951	.00270	.04100	-.04900	.65530	.01768
.201	10.370	.51570	.11940	.00650	.56800	.01742	.00100	.04220	-.05200	.65580	.01846
.201	12.480	.63900	.14920	.01050	.67570	.00327	.00000	.04210	-.05400	.65430	.01967
.201	14.580	.78100	.18540	.01390	.78320	-.01192	-.00190	.04260	-.05530	.65360	.02093
.201	16.640	.86100	.22930	.01520	.89060	-.02693	-.00310	.04080	-.05300	.65380	.02173
.201	18.700	.95370	.30650	.00360	1.00740	-.01747	-.00200	.04520	-.06700	.65860	.02474
.201	20.770	1.02480	.37560	.01170	1.08960	-.01706	-.00810	.03350	-.03700	.65610	.02862
.201	22.820	1.07430	.43350	.01970	1.15830	-.01715	-.00830	.03130	-.03800	.65380	.03395
.201	24.890	1.07940	.48080	.03170	1.18190	-.01817	-.01370	.03030	-.03600	.65030	.03368
GRADIENT	.04439	-.00005	-.00005	.00066	.04552	-.00160	-.00043	.00043	-.00123	.00674	-.00000

NR.701.0405 OFB 816C507F1J5612487V5X10

(R00053) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 36.FT. XREF = 43.5974 INCHES  
 YREF = 19.2999 INCHES YREF = .0000 INCHES  
 ZREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = .0000 B.FLAP = -18.000  
 RUDDER = .0000 RFLARE = .0000  
 ELEVON = .0000 AILRON = .0000  
 NACK/L = .0000 LIP = 4.000

RUN NO. 393/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CL	CD	CLM	CLN	CAF	ON	CSL	CY	P/L	CAB
.201	-12.080	.09110	.03800	-.00640	.09120	.03797	-.00240	.00340	.27200	.64540	.02159
.201	-6.030	.06690	.04520	-.00200	.08700	.04319	-.00360	.00380	.18400	.53820	.01862
.201	-4.040	.06090	.03240	.00020	.08090	.05236	-.00400	.00200	.09400	.45900	.01674
.201	-2.020	.07880	.05530	.00240	.07890	.05922	-.00250	.00250	.04700	.64900	.01560
.201	-.020	.07540	.05640	.00310	.07550	.05641	-.00100	.00100	.00300	.64500	.01375
.201	2.000	.07630	.05520	.00260	.07630	.05521	.00040	-.00250	-.04100	.64740	.01613
.201	4.010	.07540	.05250	.00100	.07550	.05225	.00230	-.00330	-.09000	.65490	.01676
.201	6.040	.07980	.04560	-.00330	.07960	.04557	.00480	-.00580	-.18300	.67480	.01925
.201	12.050	.08510	.03770	-.00770	.08520	.03769	.00440	-.00500	-.27400	.69250	.02315
GRADIENT	-.00067	-.00001	-.00001	.00009	-.00067	-.00001	.00077	-.00074	-.02266	-.00049	.00002

NR.701.0405 ORB B16C507F1J5G12AB7V3X10

(R0N534) ( 23 JUN 73 )

## REFERENCE DATA

SRCP = 4.4119 SQ.FT. XRRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 10.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 354/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.090	.55970	.10040	-.00020	.56980	-.00223	-.00920	.01770	.28200	.66010	.02379
.201	-8.040	.55640	.10430	.00320	.56610	.00222	-.00790	.01400	.18500	.65680	.01823
.201	-4.030	.56000	.10720	.00750	.57020	.00437	-.00440	.00700	.09300	.65520	.01758
.201	-2.020	.55610	.10860	.00820	.56880	.00626	-.00280	.00310	.04900	.65480	.01701
.201	-.010	.55360	.11030	.00920	.57030	.00746	-.00100	-.00080	.00700	.65410	.01667
.201	1.980	.55670	.10920	.00900	.56920	.00655	.00030	-.00320	-.03500	.65430	.01724
.201	4.010	.55990	.10730	.00800	.56610	.00526	.00230	-.00930	-.07900	.65490	.01823
.201	6.050	.55640	.10590	.00490	.56640	.00372	.00690	-.01640	-.17400	.65700	.01949
.201	12.080	.55540	.10140	-.00020	.56480	-.00044	.00940	.00200	-.27500	.66010	.02368
.201	GRADIENT	-.00038	.00003	.00009	-.00038	.00010	.00081	-.00204	-.02131	-.00005	.00006

NR.701.0405 ORB B16C507F1J5G12AB7V3X10

(R0N535) ( 23 JUN 73 )

## REFERENCE DATA

SRCP = 4.4119 SQ.FT. XRRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YRRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZRRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACVL = .000 LIP = 4.000

RUN NO. 355/ 0 RNVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLM	ON	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.100	.61180	.18770	.00010	.61180	-.03704	-.00830	.02410	.27200	.65990	.02467
.201	-8.050	.61710	.19430	.00690	.63930	-.03247	-.00810	.01790	.17900	.65700	.02210
.201	-4.050	.61360	.19720	.01260	.63660	-.02880	-.00470	.00970	.09100	.65430	.01971
.201	-2.010	.61470	.19760	.01370	.63780	-.02873	-.00260	.00360	.05000	.65410	.01933
.201	.000	.61750	.19720	.01430	.64040	-.02990	-.00070	-.00150	.00900	.65380	.02087
.201	1.980	.61670	.19680	.01420	.63960	-.03018	.00140	-.00630	-.03300	.65390	.02134
.201	4.000	.61090	.19620	.01520	.63580	-.02902	.00340	-.01240	-.07500	.65340	.02062
.201	8.040	.61230	.19340	.01040	.63440	-.03208	.00800	-.02170	-.16500	.65540	.02154
.201	12.070	.60920	.18880	.00340	.63010	-.03579	.00970	-.02730	-.26300	.65780	.02334
.201	GRADIENT	-.00017	-.00014	.00028	-.00019	-.00009	.00101	-.00270	-.02070	-.00012	.00019

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TABULATED SOURCE FORCE DATA-NAAL 701

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NR.701.0405 ORB 816C507F1J5612W87V5X10

(RDN357) (25 JUN 73)

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 18.000 B.FLAP = -1P  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .000 LIP = 4.000

RUN NO. 356/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-12.030	.93020	.27930	.00160	.97060	-.03359	-.01200	.01470	.29100	.65930	.02555
.201	-8.040	.94960	.29310	-.00010	.99370	-.02719	-.01410	.00960	.19700	.66000	.02509
.201	-4.020	.96030	.29770	.00500	1.00510	-.02622	-.00840	.00710	.09600	.65810	.02309
.201	-2.010	.97290	.30120	.00270	1.01810	-.02708	-.00390	.00290	.03100	.65900	.02454
.201	.000	.97590	.30420	.00030	1.02150	-.02530	-.00020	-.00050	.00800	.65970	.02563
.201	2.000	.97630	.29420	.00510	1.00010	-.02825	.00700	.00230	-.04600	.65810	.02663
.201	4.010	.94280	.29000	.01040	.98600	-.02783	.01030	-.00470	-.06500	.65610	.02405
.201	6.030	.94010	.28760	.00720	.98270	-.02899	.01570	-.01090	-.18400	.65730	.02562
.201	12.100	.93350	.28150	.00260	.97450	-.03269	.01590	-.01510	-.28200	.65970	.02593
GRADIENT		-.00257	-.00112	.00066	-.00280	-.00022	.00241	-.00121	-.02287	-.00024	.00020

NR.701.0405 ORB 816C507F1J6612W87V5X10

(RDN357) (25 JUN 73)

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

RUN NO. 357/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	ALPHA	CL	CDP	CLM	CN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.080	-.10470	.06280	-.00130	-.10690	.03520	-.00090	-.00120	.00000	.65340	.01464
.201	-2.030	-.01310	.05870	-.00010	-.01520	.03823	-.00290	-.00120	.00000	.65330	.01457
.201	-.960	.03560	.05740	-.00020	.03460	.03600	-.00090	-.00110	.00000	.66290	.01460
.201	.060	.06160	.05700	-.00030	.08170	.03692	-.00090	-.00100	.00000	.66150	.01456
.201	1.120	.12750	.05680	.00000	.12860	.03433	-.00090	-.00100	.00000	.66020	.01456
.201	2.100	.17620	.05790	.00020	.17830	.03138	-.00090	-.00120	.00200	.65950	.01540
.201	4.130	.26690	.06300	.00090	.27080	.04355	-.00090	-.00120	.00200	.65880	.01469
.201	6.230	.35990	.07120	.00040	.36550	.03171	-.00110	-.00120	.00300	.65950	.01530
.201	8.310	.45680	.06600	.00150	.46420	.01913	-.00100	-.00110	.00300	.65870	.01487
.201	10.310	.55640	.10750	.00290	.56670	.00562	-.00110	-.00110	.00400	.65810	.01636
.201	12.480	.65090	.13520	.00510	.67250	-.01024	-.00130	-.00110	.00600	.65720	.01732
.201	14.300	.75220	.16600	.00970	.76980	-.02811	-.00110	-.00120	.00600	.65340	.01904
.201	16.610	.84350	.20390	.01470	.86660	-.04572	.00030	-.00230	.00600	.65390	.01865
.201	18.660	.90140	.27990	.01440	.94360	-.02321	.00230	.00650	-.00600	.65450	.02166
.201	20.720	.94160	.33830	.02210	1.00040	-.01670	.00080	.00000	.00400	.65200	.02486
.201	22.740	.95150	.36010	.04070	1.02430	-.01724	.00340	.00000	.00200	.64970	.02634
.201	24.760	.96500	.42170	.05540	1.05300	-.02137	.00360	-.00100	.00200	.64100	.03639
GRADIENT		.04523	-.00004	.00022	.04622	-.00147	-.00000	.00000	.00026	.00045	.00004

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ADULATED SOURCE FORCE DATA-NMAL T01

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NR.701.0405 ORS B16C507F1J6G12M8TV5X10

(R0N039) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 54.17. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 358/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = .000 D.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

MAC	BETA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCF/L	CAB
.201	-4.010	.06750	.05310	-.00310	.08760	.05303	-.00330	.00150	.09000	.67300	.01566
.201	.000	.08320	.05660	.00000	.08330	.05656	-.00090	-.00100	.00100	.65970	.01518
.201	4.010	.06030	.05330	-.00210	.08060	.05327	.00170	-.00390	-.08800	.66960	.01571
.201	6.050	.08320	.04650	-.00660	.08320	.04648	.00420	-.00380	-.18100	.68930	.01795
.201	12.070	.09400	.03960	-.01240	.09410	.03856	.00410	-.00390	-.27100	.70760	.02162
	GRADIENT	-.00067	.00002	.00012	-.00067	.00003	.00062	-.00067	-.02219	-.00042	.00001

NR.701.0405 ORS B16C507F1J6G12M8TV5X10

(R0N039) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 54.17. XMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405 SCALE

RUN NO. 359/ 0 RV/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

ALPHA = 5.000 D.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACX/L = .490 LIP = 4.000

MAC	BETA	CL	CLF	CLM	CN	CAF	CLN	CSL	CY	XCF/L	CAB
.201	-4.040	.31810	.06370	-.00140	.32260	.03437	-.00340	.00300	.09100	.66160	.01636
.201	.000	.31350	.06690	.00000	.31820	.03818	-.00100	-.00120	.00200	.66000	.01514
.201	4.020	.31250	.06420	-.00160	.31680	.03560	.00190	-.00380	-.08400	.66190	.01636
.201	6.050	.31250	.05960	-.00490	.31640	.03102	.00390	-.01020	-.18100	.66580	.01644
.201	12.080	.31850	.05430	-.01030	.32210	.02517	.00720	-.01280	-.27300	.67140	.02162
	GRADIENT	-.00072	.00006	-.00002	-.00072	.00013	.00066	-.00109	-.02171	.00004	-.00000

DATE 27 SEP 73

TABULATED SOURCE FORCE DATA-NAL 701

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NR. 701.0405 ORB B16C307F1J6C12J67V5X10

(R0036C) 23 JUN 73

## REFERENCE DATA

YREF = 4.4119 56.FT. YREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = 114.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACYL = .490 LIP = 4.000

RUN NO. 360/ 5 BVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CD	CLN	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.020	.55600	.10320	.00140	.54790	.02292	-.00340	.02630	.00000	.65900	.01758
.201	.000	.55700	.10370	.00320	.54790	.00653	-.00120	-.00060	.00600	.65790	.01613
.201	4.010	.55420	.10390	.00240	.54430	.00430	.00130	-.02670	-.07900	.65840	.01738
.201	8.050	.55310	.10270	-.00080	.54260	.00138	.00630	-.01460	-.17470	.66090	.01678
.201	12.080	.55640	.09910	-.00690	.54510	-.02269	.00840	-.01840	-.27500	.65440	.02103
GRADIENT	-.00047	.00009	.00012	-.00045	.00017	.00061	-.00178	-.02105	-.00007	.00004	.00004

NR. 701.0405 ORB B16C307F1J6C12J67V5X10

(R00361) 23 JUN 73

## REFERENCE DATA

YREF = 4.4119 56.FT. YREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

ALPHA = 15.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 AILRON = .000  
 MACYL = .490 LIP = 4.000

RUN NO. 361/ 5 BVL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	CL	CD	CLN	CLN	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.030	.79680	.16590	.01390	.81790	-.05496	-.00370	.00700	.08700	.65560	.01867
.201	.000	.79910	.16550	.01140	.81980	-.03567	-.00090	-.00190	.00700	.65490	.01884
.201	4.020	.79140	.16400	.01200	.81180	-.03535	.00290	-.01180	-.07900	.65460	.01918
.201	8.050	.79980	.16310	.07820	.81980	-.03648	.00680	-.01840	.00000	.65720	.01945
.201	12.080	.80560	.16150	-.00370	.82490	-.04165	.00700	-.02190	.00000	.66160	.02065
GRADIENT	-.00067	-.00024	.00031	-.00071	-.00005	.00062	-.00236	-.00012	-.00015	.00008	.00008



NR.701.0405 ORB B16C507F1.0612UB7V5X10

(R2NC42) ( 23 JUN 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. DRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BRF = 37.9349 INCHES ZREF = 16.2070 INCHES  
 SCALE = .0405 SCALE

RUN NO. 3452/ 0 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.020	.09500	.28180	.01250	.93000	-.01974	-.00500	.00700	.06000	.65520	.02150
.201	.000	.09010	.27890	.01440	.93020	-.02256	.00260	.00750	-.00800	.65440	.02142
.201	4.010	.08050	.27220	.01450	.92800	-.02549	.00600	-.00350	-.06500	.65450	.02185
.201	8.050	.09950	.26650	.01090	.93760	-.03406	.01180	-.01300	-.17600	.65570	.02235
.201	12.070	.90500	.26650	.00300	.94350	-.03750	.01250	-.01830	-.27400	.65900	.02254
.201	GRADIENT	-.00110	-.00117	.00025	-.00149	-.00072	.00162	-.00151	-.02154	-.00011	.00003

## PARAMETRIC DATA

ALPHA = 16.000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLUPON = .000  
 MAC/L = .400 LIP = 4.000

## REFERENCE DATA

SRF = 4.4119 SQ.FT. DRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BRF = 37.9349 INCHES ZREF = 16.2070 INCHES  
 SCALE = .0405 SCALE

NR.701.0405 ORB B16C507F1.0612UB7E10V5X10

(R2NC43) ( 23 JUN 73 )

RUN NO. 3453/ 0 RVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CL	CDP	CLM	CM	CAF	CLN	CSL	CY	XCP/L	CAB
.201	-4.020	-.09040	.08040	-.00520	-.09310	.06288	.00610	.00500	-.05000	.64010	.01877
.201	-2.000	.00110	.06500	-.00460	-.00510	.06562	.00750	.00600	-.03900	-.76000	.01700
.201	-.950	.04700	.06500	-.00390	.04990	.06584	.00700	.00720	-.04000	.09040	.01833
.201	.070	.09500	.06500	-.00350	.09300	.06384	.00650	.00610	-.04200	.07370	.01748
.201	1.000	.13000	.06490	-.00310	.13000	.06237	.00610	.00620	-.04200	.06020	.01879
.201	2.150	.18350	.06620	-.00280	.18300	.05942	.00500	.00690	-.04300	.06340	.01684
.201	4.170	.27100	.07090	-.00100	.27940	.05102	.00420	.00500	-.04300	.06150	.01893
.201	6.250	.34180	.07900	.00000	.35050	.03984	.00340	.00600	-.04700	.05900	.01875
.201	8.290	.43250	.09300	.00280	.46150	.02755	.00200	.04030	-.04800	.03770	.01892
.201	10.410	.52610	.11640	.00340	.56870	.01472	.00050	.04210	-.05200	.03780	.01822
.201	12.470	.65610	.14350	.00500	.67160	-.00154	-.00070	.04280	-.05500	.03700	.01970
.201	14.550	.74870	.17610	.00990	.76900	-.01769	-.00240	.04290	-.05500	.03550	.01909
.201	16.600	.85360	.22500	.00990	.86320	-.02232	.00210	.04600	-.06000	.03500	.02722
.201	18.670	.89950	.26000	.01450	.94360	-.01613	-.00390	.04390	-.05600	.03450	.02124
.201	20.600	.91450	.34540	.02760	.97690	-.00184	-.00670	.02390	-.02900	.04300	.02414
.201	22.750	.94000	.38620	.04540	1.01700	-.00735	-.00580	.01970	-.02500	.04370	.02891
.201	24.770	.94790	.42710	.06070	1.03750	-.01309	-.00450	.01540	-.01400	.03890	.03503
.201	GRADIENT	.04390	.00016	.00049	.04950	-.00146	-.00044	.00049	-.00106	.06070	.00002

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = .000 ALLUPON = 10.000  
 MAC/L = .400 LIP = 4.000

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TABULATED SOURCE FORCE DATA-NAL T01

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NR T01.0405 ORG 818C507F1J6512W87E18V5X10

ORIG640 1 23 JUN 73 )

## REFERENCE DATA

YREF = 4.4119 36 FT. XREF = 43.5974 INCHES  
 LREF = 19.2999 INCHES YREF = .0020 INCHES  
 DREF = 37.9348 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

BETA = .000 B FLAP = -19.000  
 RUFCR = .000 SF LAR = .000  
 FLOWN = 15.000 AIRRON = .000  
 NACVL = .490 LIP = 4.000

RIN NO. 364/ 0 RVUL = 1.44 GRADIENT INTERVAL = -5.07/ 5.00

NAOH	ALPHA	CL	COF	CLM	ON	CAF	CLN	CSL	CY	NCP/L	CAB
.201	3.270	.17680	.07080	-.13310	.17340	.06268	-.00080	.00000	.01300	.93550	.01987
.201	1.113	.26840	.07480	-.13290	.26390	.08341	-.00080	.00000	.00300	.83940	.02020
.201	1.113	.31450	.07820	-.13260	.31340	.06254	-.00090	.00000	.00400	.61190	.01989
.201	1.210	.35790	.08180	-.13200	.35820	.08028	-.00100	-.00010	.00400	.75020	.02039
.201	1.290	.40040	.08630	-.12960	.40210	.07764	-.00100	-.00020	.00400	.77540	.01982
.201	2.070	.45920	.09190	-.12780	.44240	.07384	-.00100	-.00030	.00400	.76360	.01932
.201	4.170	.52610	.10450	-.12730	.53290	.06484	-.00120	-.00080	.00700	.74570	.01968
.201	6.400	.51940	.12290	-.12620	.62930	.05312	-.00190	-.00090	.00900	.73200	.01919
.201	8.500	.73480	.15070	-.13320	.74390	.04045	-.00150	-.00040	.00800	.72380	.02029
.201	10.570	.93610	.18250	-.13300	.85540	.02600	-.00170	-.00050	.00800	.71580	.02102
.201	12.640	.93340	.21960	-.13110	.95890	.00996	-.00190	-.00070	.01000	.70900	.02169
.201	14.710	1.02410	.26100	-.12620	1.05680	-.00768	-.00190	-.00040	.00800	.70280	.02288
.201	16.770	1.10720	.31300	-.12060	1.15320	-.01413	-.00220	-.00190	.00000	.69750	.02451
.201	18.780	1.06990	.37800	-.09310	1.13750	.02292	.00010	.00000	.00700	.68930	.03028
.201	20.800	1.04630	.44670	-.06180	1.13150	.02670	.00000	-.00030	.00600	.67960	.03511
.201	22.870	1.05370	.46780	-.03600	1.13450	.02058	.00020	.00110	.00200	.67110	.03815
.201	24.860	1.06640	.49980	-.00730	1.17950	.00411	.00200	-.00010	.00100	.66220	.04558
GRADIENT	.04212	.00411	.00411	.00084	.04352	-.00223	-.00005	-.00005	.00042	-.02195	-.00006

\*R.701.0405 ORB 816C307F1.0612807E18V5X10

(RDN065) ( 23 JUN 73 )

## REFERENCE DATA

SREF = 4.4119 34.FT. XREF = 43.5974 INCHES  
 YREF = 19.2599 INCHES YREF = .0000 INCHES  
 ZREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCALE

## PARAMETRIC DATA

SETA = .000 B.FLAP = -16.000  
 RUDDER = .000 RFLARE = .000  
 ELEVON = -15.000 AILRON = .000  
 MAC/L = .490 LIP = 4.000

RUN NO. 365/ 0 RN/L = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDP	CLM	CM	CAP	CLM	CSL	CY	KCP/L	CAB
.201	-4.800	-.37030	.06990	.12000	-.36390	.04197	-.00110	-.00150	-.00200	.77210	.01024
.201	-2.140	-.28770	.07780	.12100	-.29040	.06684	-.00110	-.00170	-.00100	.90540	.01000
.201	-1.100	-.21380	.07580	.10900	-.21320	.06946	-.00190	-.00770	.00000	.84280	.01041
.201	-.040	-.16410	.06950	.10600	-.16420	.06935	-.00180	-.00670	.00100	.89780	.01092
.201	.980	-.11570	.06610	.10640	-.11460	.06805	-.00180	-.00950	.00200	.99920	.01148
.201	1.990	-.06780	.06370	.10620	-.06560	.06607	-.00190	-.00980	.00300	1.25170	.01116
.201	4.140	.02030	.06110	.10650	.03060	.05911	-.00180	-.01020	.00500	-.61190	.01148
.201	6.120	.12040	.06250	.10960	.12640	.04929	-.00150	-.01090	.00800	.34680	.01142
.201	8.190	.21320	.06830	.11190	.22060	.03722	-.00120	-.01140	.00200	.47810	.01159
.201	10.270	.30430	.06150	.11740	.31400	.02593	-.00090	-.01120	.00300	.52370	.01158
.201	12.350	.39950	.09940	.12350	.41150	.01163	-.00050	-.01150	.00200	.55220	.01293
.201	14.410	.49020	.12160	.13090	.50310	-.00423	-.00030	-.01090	.00300	.56690	.01413
.201	16.470	.57820	.14910	.13710	.59460	-.02136	.00110	-.00990	.00200	.57720	.01469
.201	18.530	.65390	.20700	.13370	.68560	-.01175	.00230	-.00850	.01100	.59200	.01562
.201	20.610	.71740	.26010	.13550	.76300	-.00913	.00390	-.00530	.00800	.59620	.01814
.201	22.650	.76550	.30620	.13750	.82440	-.01226	.00690	-.00510	.00900	.60010	.02274
.201	GRADIENT	.04975	-.00347	-.00168	.05093	-.00033	-.00009	-.00122	.00368	-.10371	.00019

DATE 27 SEP 75

TABULATED SOURCE FORCE DATA-NAL 701

MR. 701.0405 ORB B16C30771J5612487E16V5X10

(R00068) ( 3 JUN 75 )

## REFERENCE DATA

SALT = 4.4119 34. FT. 300P = 43.3974 INCHES  
 LREF = 19.2999 INCHES 100P = .0000 INCHES  
 BREF = 27.9349 INCHES 200P = 16.2000 INCHES  
 SCALE = .0405 SCALE

DELTA =  
 RUDDER =  
 ELEVON =  
 NAC/L =

.000 100P = -16.000  
 .000 100P = .000  
 3.000 100P = .000  
 .490 100P = 4.000

## PARAMETRIC DATA

RUN NO. 346/ 0 BVAL = 1.44 GRADIENT INTERVAL = -5.00/ 5.00

HAON	ALPHA	CL	CDP	CLM	CM	CAF	CLM	CSL	CY	KCP/L	CA3
.201	-4.000	-.00390	.06170	-.04680	-.00820	.06136	-.00090	-.00110	.00100	-1.37970	.01612
.201	-1.930	.04700	.06040	-.04730	.06490	.06339	-.00090	-.00100	.00000	.85970	.01590
.201	-.910	.13600	.06030	-.04700	.13500	.06253	-.00100	-.00100	.00200	.78480	.01606
.201	.130	.16280	.06190	-.04670	.16300	.06155	-.00100	-.00120	.00200	.73160	.01649
.201	1.130	.22740	.06370	-.04700	.22880	.05918	-.00120	-.00140	.00400	.73380	.01668
.201	2.190	.27990	.06690	-.04630	.27830	.05638	-.00130	-.00110	.00300	.72010	.01644
.201	4.240	.36410	.07450	-.04610	.36870	.04734	-.00130	-.00100	.00500	.75490	.01652
.201	6.380	.45930	.08620	-.04650	.46600	.03514	-.00130	-.00170	.00600	.63590	.01697
.201	8.390	.55590	.10350	-.04620	.56530	.02300	-.00170	-.00170	.00800	.68930	.01700
.201	10.470	.65600	.13110	-.04530	.67090	.007940	-.00200	-.00140	.00900	.68420	.01769
.201	12.540	.75640	.16190	-.04380	.77540	-.00659	-.00240	-.00150	.00900	.68020	.01743
.201	14.610	.85460	.19620	-.04020	.87680	-.02373	-.00290	-.00150	.01000	.67640	.02046
.201	16.670	.93930	.23800	-.03370	.96820	-.04145	-.00330	-.00280	.00700	.67240	.02057
.201	18.710	1.0180	.32070	-.02910	1.02330	-.06926	.00040	.00170	.00200	.67020	.02486
.201	20.750	.90540	.37310	-.01480	1.06300	-.00367	.00090	-.00160	.00600	.66500	.02692
.201	22.780	1.00500	.41370	.00890	1.09660	-.00783	.00220	.00000	.00400	.65710	.03250
.201	24.800	1.07620	.44950	.03040	1.10220	-.01369	.00250	-.00060	.00200	.65000	.03673
.201	GRA010MT	.04478	.00156	.00012	.04586	-.00170	-.00006	-.00006	.00055	.18496	-.00781

NR.T01.0405 ORB 816C907F1J6B7V5H10

(OROS87) ( 23 JUN 75 )

## REFERENCE DATA

SREF = 4.4119 36.17. 888P = 43.9574 INCHES  
 LREF = 19.2999 INCHES YREF = .0000 INCHES  
 BREF = 37.9349 INCHES ZREF = 16.2000 INCHES  
 SCALE = .0405 SCAL.

## PARAMETRIC DATA

BETA = .000 B.FLAP = -18.000  
 RUDDER = .000 FLARES = .070  
 ELEVON = .000 AILRON = .000  
 NACX/L = .490 LIP = 4.000

RUN NO. 367/ 0 RV/L = 1.44 GRADIENT INTERVAL = -3.00/ 5.00

NAOH	ALPHA	CL	CDP	CLM	CM	CAP	CLN	C/L	CY	MCP/L	CAS
.201	-4.080	-1.2030	.03360	.00460	-.12260	.02331	-.00090	-.00060	.00000	.87410	.01486
.201	-2.000	-.02300	.03020	.00460	-.02410	.02339	-.00070	-.00050	-.00100	.72840	.01465
.201	-.960	.02410	.02970	.00460	.02360	.03015	-.00090	-.00050	.00000	.59960	.01546
.201	.040	.07260	.03030	.00460	.07260	.03031	-.00100	-.00060	.00100	.63560	.01503
.201	1.080	.12100	.03080	.00500	.12160	.02832	-.00090	-.00060	.00200	.64510	.01566
.201	2.090	.16960	.03330	.00510	.17090	.02713	-.00090	-.00090	.00200	.64910	.01519
.201	4.170	.26300	.04000	.00540	.26720	.02062	-.00090	-.00100	.00200	.65270	.01499
.201	6.250	.36360	.04970	.00470	.36680	.00962	-.00100	-.00130	.00300	.65330	.01567
.201	8.330	.46410	.06630	.00490	.46890	-.00171	-.00090	-.00110	.00300	.65610	.01599
.201	10.410	.56350	.08910	.00610	.57230	-.01441	-.00120	-.00100	.00400	.65610	.01706
.201	12.480	.66910	.11640	.00620	.67660	-.02692	-.00110	-.00100	.00300	.65560	.01627
.201	14.560	.76720	.13280	.01120	.78090	-.04323	-.00100	-.00110	.00400	.65460	.01926
.201	16.620	.86210	.15230	.01540	.88120	-.06221	.00090	-.00230	.00100	.65370	.01892
.201	18.670	.91610	.17010	.01610	.93440	-.03745	.00140	.00440	-.00400	.65390	.02081
.201	20.710	.93330	.32630	.02440	1.00710	-.03206	.00030	-.00040	.00300	.65120	.02454
.201	22.750	.97760	.37640	.04010	1.04690	-.03094	.00210	-.00120	.00400	.64620	.02936
.201	24.810	.98500	.41670	.04620	1.07610	-.03636	.00510	-.00130	.00400	.64100	.03604
.201	GRADIENT	.04662	.00075	.00009	.04734	-.00056	-.00001	-.00006	.00037	-.00435	.00003

APPENDIX  
TABULATED PROPULSION DATA

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Data listings are available on  
request from Data Management Services.

NR-701 ORB B18C5D7J3G12W87+GP (W, FLOW)

(CDN370) ( 29 SEP 73 )

## REFERENCE DATA

SREF =	4.4119	SQ.FT.	YARP =	43.5974	INCHES
LREF =	19.2999	INCHES	YARP =	.0000	INCHES
BREF =	37.9349	INCHES	ZARP =	16.2000	INCHES
SCALE =	.0405				

RUN NO.	370/ 0	RVAL =	.00	GRADIENT INTERVAL =	-5.00/	5.00
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### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4.000
NBT	=	.000	RD	=	3.000

[illegible]

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO.	370/0	RUN/	.00	GRADIENT INTERVAL =	-5.00/	5.00
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### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4.000
NBT	=	.000	RD	=	3.000

MACH	ALPHA	CPSI	CPSO	CPSI1	CPSI2	CPSO1	CPSO2	MIN	MON	PRTI	PRTO
.000	-3.900	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00500	1.00000	1.00000
.000	-3.900	-.11200	.00000	.12100	-.10200	-.12200	-.11800	.08700	.09000	1.00000	.99990
.000	-3.900	-.25000	-.12000	-.25200	-.21400	-.25500	-.24700	.12500	.13000	.99990	1.00000
.000	-3.900	-.35900	-.39000	-.36900	-.32900	-.39500	-.38500	.15600	.16300	1.00000	1.00000
.000	-3.900	-.48000	-.52100	-.52100	-.43900	-.52800	-.52100	.18100	.18900	1.00000	.99990
.000	-3.900	-.61000	-.66500	-.66100	-.55800	-.67400	-.65500	.20400	.21400	1.00000	1.00000
.000	-3.900	-.71700	-.78100	-.78000	-.65500	-.79000	-.77200	.22200	.23000	.99990	.99940
.000	-3.900	-.83600	-.91900	-.91200	-.76100	-.93000	-.90800	.24000	.25200	1.00000	1.00000
.000	-3.900	-.97500	-.1.05300	-.1.05500	-.89100	-.1.06200	-.1.04300	.26000	.27000	1.00000	.99980
.000	-3.900	-.1.08400	-.1.18600	-.1.18200	-.98800	-.1.19100	-.1.18000	.27500	.28700	.99990	.99990
.000	-3.900	-.1.20000	-.1.31000	-.1.30800	-.1.09100	-.1.31500	-.1.30400	.28900	.30300	1.00000	1.00000
.000	.000	.00000	.00000	.00000	.00000	.00000	.00000	.00600	.00400	1.00000	1.00000
GRADIENT	.000	.13394	.16774	.16739	.14347	.15928	.16611	-.04599	-.04869	.00001	.00003

NR-751 ORB 016C:07 J3512487+CP (W.FLOW)

(EDAG 70) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.419 SQ. FT. XGRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154,000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4,000
NBT	=	.000	RD	=	3,000

RUN NO. 375/ 0 RNL = .00 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

## REFERENCE DATA

BRDF = 4.4119 SQ. FT. YARP = 43.5974 INCHES  
URDF = 19.2999 INCHES YARP = .0000 INCHES  
BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

### PARAMETRIC DATA

BETA	=	.0000	GDP	=	154.0000
DE	=	.0000	DA	=	.0000
X/L	=	.0000	LIP	=	4.0000
NR	=	.0000	RD	=	3.0000

RUN NO.	370/ 0	RVAL = .03	GRADIENT INTERVAL = -3.00/ 5.00
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	1.00	1.00	1.00
4	1.00	1.00	1.00
5	1.00	1.00	1.00
6	1.00	1.00	1.00
7	1.00	1.00	1.00
8	1.00	1.00	1.00
9	1.00	1.00	1.00
10	1.00	1.00	1.00
11	1.00	1.00	1.00
12	1.00	1.00	1.00
13	1.00	1.00	1.00
14	1.00	1.00	1.00
15	1.00	1.00	1.00
16	1.00	1.00	1.00
17	1.00	1.00	1.00
18	1.00	1.00	1.00
19	1.00	1.00	1.00
20	1.00	1.00	1.00
21	1.00	1.00	1.00
22	1.00	1.00	1.00
23	1.00	1.00	1.00
24	1.00	1.00	1.00
25	1.00	1.00	1.00
26	1.00	1.00	1.00
27	1.00	1.00	1.00
28	1.00	1.00	1.00
29	1.00	1.00	1.00
30	1.00	1.00	1.00
31	1.00	1.00	1.00
32	1.00	1.00	1.00
33	1.00	1.00	1.00
34	1.00	1.00	1.00
35	1.00	1.00	1.00
36	1.00	1.00	1.00
37	1.00	1.00	1.00
38	1.00	1.00	1.00
39	1.00	1.00	1.00
40	1.00	1.00	1.00
41	1.00	1.00	1.00
42	1.00	1.00	1.00
43	1.00	1.00	1.00
44	1.00	1.00	1.00
45	1.00	1.00	1.00
46	1.00	1.00	1.00
47	1.00	1.00	1.00
48	1.00	1.00	1.00
49	1.00	1.00	1.00
50	1.00	1.00	1.00
51	1.00	1.00	1.00
52	1.00	1.00	1.00
53	1.00	1.00	1.00
54	1.00	1.00	1.00
55	1.00	1.00	1.00
56	1.00	1.00	1.00
57	1.00	1.00	1.00
58	1.00	1.00	1.00
59	1.00	1.00	1.00
60	1.00	1.00	1.00
61	1.00	1.00	1.00
62	1.00	1.00	1.00
63	1.00	1.00	1.00
64	1.00	1.00	1.00
65	1.00	1.00	1.00
66	1.00	1.00	1.00
67	1.00	1.00	1.00
68	1.00	1.00	1.00
69	1.00	1.00	1.00
70	1.00	1.00	1.00
71	1.00	1.00	1.00
72	1.00	1.00	1.00
73	1.00	1.00	1.00
74	1.00	1.00	1.00
75	1.00	1.00	1.00
76	1.00	1.00	1.00
77	1.00	1.00	1.00
78	1.00	1.00	1.00
79	1.00	1.00	1.00
80	1.00	1.00	1.00
81	1.00	1.00	1.00
82	1.00	1.00	1.00
83	1.00	1.00	1.00
84	1.00	1.00	1.00
85	1.00	1.00	1.00
86	1.00	1.00	1.00
87	1.00	1.00	1.00
88	1.00	1.00	1.00
89	1.00	1.00	1.00
90	1.00	1	

[illegible]





(EDNG 71) ( 29 SEP 73 )

ME 101 088 816C5071361248746F TELONE OF (140 43078)

## REFERENCE DATA

SRFS = 4.4119 SQ.FT.      WARP = 43.9974 INCHES  
 LREF = 19.2999 INCHES      WARP = 1.7210 INCHES  
 BRFS = 37.9349 INCHES      WARP = 16.2070 INCHES  
 SCALE = .0405

### PARAMETRIC DATA

BETA	=	.000	GP	=	154,000
CE	=	.000	DA	=	.000
Y/L	=	.000	LIP	=	4,000
RYT	=	.000	RD	=	3,000

5104 NO.	372 / 0	RMSL = .12	GRADIENT INTERVAL = -5.00 / 5.00
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ALPHA	Q	RT11	RT12	RT13	RT14	RT15	RT16	RT17	RT18	RT19
.117	-3.200	.99940	.99940	.99920	.99910	.99880	.99890	.99970	.99920	.99910
.116	20.22600	.99880	.99860	.99820	.99870	.99770	.99810	.99810	.99830	.99840
.117	5.300	.99920	.99820	.99810	.99810	.99820	.99780	.99780	.99800	.99890
.117	10.900	.99920	.99930	.99920	.99920	.99920	.99870	.99890	.99930	.99940
.118	15.700	.99940	.99940	.99940	.99940	.99930	.99930	.99930	.99930	.99930
.117	18.800	.99940	.99940	.99940	.99930	.99930	.99930	.99940	.99950	.99930
CRITICAL	-3.998	.99910	.99920	.99940	.99930	.99930	.99920	.99920	.99920	.99920

REFERENCE DATA

19007 = 4.4119 SQ. FT.      10000 = 43.5974 INCHES  
 19007 = 19.2999 INCHES      10000 = 5.0000 INCHES  
 19007 = 37.9349 INCHES      20000 = 16.2170 INCHES  
 SCALE = .5405

### PARAMETRIC DATA

	BETA	COG	DA	LIP	RD
1	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000
23	0.000	0.000	0.000	0.000	0.000
24	0.000	0.000	0.000	0.000	0.000
25	0.000	0.000	0.000	0.000	0.000
26	0.000	0.000	0.000	0.000	0.000
27	0.000	0.000	0.000	0.000	0.000
28	0.000	0.000	0.000	0.000	0.000
29	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000
31	0.000	0.000	0.000	0.000	0.000
32	0.000	0.000	0.000	0.000	0.000
33	0.000	0.000	0.000	0.000	0.000
34	0.000	0.000	0.000	0.000	0.000
35	0.000	0.000	0.000	0.000	0.000
36	0.000	0.000	0.000	0.000	0.000
37	0.000	0.000	0.000	0.000	0.000
38	0.000	0.000	0.000	0.000	0.000
39	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.000	0.000	0.000
41	0.000	0.000	0.000	0.000	0.000
42	0.000	0.000	0.000	0.000	0.000
43	0.000	0.000	0.000	0.000	0.000
44	0.000	0.000	0.000	0.000	0.000
45	0.000	0.000	0.000	0.000	0.000
46	0.000	0.000	0.000	0.000	0.000
47	0.000	0.000	0.000	0.000	0.000
48	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000
50	0.000	0.000	0.000	0.000	0.000
51	0.000	0.000	0.000	0.000	0.000
52	0.000	0.000	0.000	0.000	0.000
53	0.000	0.000	0.000	0.000	0.000
54	0.000	0.000	0.000	0.000	0.000
55	0.000	0.000	0.000	0.000	0.000
56	0.000	0.000	0.000	0.000	0.000
57	0.000	0.000	0.000	0.000	0.000
58	0.000	0.000	0.000	0.000	

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RUN NO. 371/ 5  BLS_ = .12  GRADIENT INTERVAL = -5.00/ 5.00

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[illegible]

DATE 05 DEC 73

TABULATED PRODUCTION SOURCE DATA MAAL-701

PAGE 5

NR-701 ORB 816C507J3612487+CP (BLOWER OFF)

(CDMS72) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 SQ.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES WARP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZARP = 16.2700 INCHES  
 SCALE = .0405

RUN NO. 372/ 0 RVAL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	Q	WIM	WIM	WIM	QUM	QUM	WIC	WOC	WPRO	WPRO	VC
.169	-3.400	40.64200	.09200	.09200	.09200	.09200	.09200	.10100	.10100	.97900	.97900	.20000
.164	.100	40.56200	.08400	.08400	.08400	.08400	.08400	.10400	.10400	.46370	.46370	.20000
.163	5.400	40.81970	.09600	.09600	.09600	.09600	.09600	.09400	.09400	.47620	.47620	.20000
.165	10.800	40.97000	.09200	.09200	.09200	.09200	.09200	.08400	.08400	.51000	.51000	.20000
.166	15.800	41.39970	.09800	.09800	.09800	.09800	.09800	.07200	.07200	.51330	.51330	.20000
.166	18.900	41.43800	.09800	.09800	.09800	.09800	.09800	.10400	.10400	.51660	.51660	.20000
GRADIENT			-.172286	-.172286	-.172286	-.172286	-.172286	-.172286	-.172286	-.071180	-.071180	.00000

## PARAMETRIC DATA

BETA = .000 GPP = 134.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 PD = 3.000

## REFERENCE DATA

BRDF = 4.4119 SQ.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES WARP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZARP = 16.2700 INCHES  
 SCALE = .0405

RUN NO. 372/ 0 RVAL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	QPS1	QPS0	QPS11	QPS12	QPS01	QPS02	MIN	WON	WPRO	WPRO	PRTO
.169	-3.400	.62400	.62200	.64400	.64400	.63700	.63700	.09300	.09300	.99850	.99850	.99970
.164	.100	.55770	.54000	.57700	.57900	.61800	.62200	.08900	.08900	.99870	.99870	.99960
.163	5.400	.55800	.53900	.57200	.54100	.51000	.56800	.08800	.08800	.99700	.99700	.99970
.165	10.800	.61000	.51900	.62600	.59400	.24700	.28900	.09400	.09400	.99880	.99880	.99970
.166	15.800	.62100	.54800	.63000	.61100	.08700	.21000	.09500	.09500	.99910	.99910	.99970
.166	18.900	.61970	.57970	.62800	.61100	.01800	.13200	.09600	.09600	.99910	.99910	.99970
GRADIENT										-.071180	-.071180	-.071180

## PARAMETRIC DATA

BETA = .000 GPP = 134.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 PD = 3.000

NR-701 ORB 816C507J3612487+CP (BLOWER OFF)

(CDMS72) ( 29 SEP 73 )

ME--WJ: CBB B1677-0618907-0618907 (CFC)

(ED-0372) (29 SEP 73)

REFERENCE DATA

DED = 4.4119 50. FT.      2000 = 43.9974 INCHES  
 LEP = 19.2759 INCHES      2000 = .9750 INCHES  
 BEP = 37.9349 INCHES      2000 = 1.2850 INCHES  
 SCALE = .2453

RUN NO.	Z	TOTAL =	GRADIENT INTERVAL =	
37210	.17	-5.05	5.05	

WACH	ALPHA	Q	ERR1	ERR12	ERR13	ERR14	ERR15	ERR16	ERR17	ERR18	ERR19
.165	-3.400	47.64200	.999950	.999940	.999910	.999890	.999840	.999800	.999700	.999620	.99950
.164	.100	47.99800	.999790	.999790	.999595	.999610	.999560	.999540	.999400	.999300	.99920
.163	5.400	48.81300	.999690	.999670	.999595	.999690	.999680	.999650	.999500	.999300	.99920
.161	10.500	49.97400	.999600	.999595	.999590	.999670	.999680	.999600	.999400	.999300	.99920
.160	15.000	49.39900	.999520	.999520	.999510	.999600	.999610	.999500	.999300	.99920	.99910
.158	18.900	49.43900	.999460	.999460	.999460	.999520	.999520	.999410	.999200	.99910	.99900
ERR120			.99940	.99934	.99934	.99930	.99930	.99920	.99910	.99900	.99890

## REFERENCE DATA

BRDF = 4.419 SQ.FT.      1000 = 43.5974 INCHES  
 URF = 19.2998 INCHES      1000 = .0770 INCHES  
 BRDF = 37.9349 INCHES      2000 = 16.2070 INCHES  
 SCALE = .0075

ROW NO. 372/0 PWL = .17 GRADIENT INTERVAL = -5.05/ 5.05

NAME	ALPHA	$\theta$	RA T20	RA T08	RA T04	RA T03	RA T07	RA T08	RA T08
1.05	-3.470	47.64273	99980	99980	99973	99980	99980	99973	99973
1.04	-1.173	47.58270	99957	99950	99960	99950	99950	99973	99973
1.05	5.470	47.61970	99930	99930	99930	99940	99950	99950	99950
1.05	10.803	47.57733	98300	99260	99790	99940	99740	98640	98620
1.06	15.800	41.39970	98150	98150	98980	99640	98910	98150	98150
1.06	18.930	41.43800	97957	98075	98515	99840	99240	97960	98010
28001000	-72298	-00003	-00003	-00073	-00003	-00003	-00000	-00000	-00000

NR-751 0508 816C507J36124874CS (BLOWER OFF)

(C00373) ( 29 SEP 73 )

## REFERENCE DATA

8007 = 4,4119 80.07. 8000 = 43.5974 100.05  
 1007 = 19.2000 100.03 1000 = .0000 100.05  
 9007 = 37.9349 100.03 2000 = 16.2000 100.05  
 SCALE = .0005

## PARAMETRIC DATA

BETA	=	.000	GBP	=	134.000
DE	=	.000	DA	=	.000
NL	=	.000	L10	=	4.000
NET	=	.000	BN	=	3.000

RUN NO. 373/5     $\text{RML} = .20$      $\text{GRADIENT INTERVAL} = -3.00/3.00$

WASH	ALPHA	$\theta$	WM	WM	QTM	QTM	WIC	WOC	WPR1	WPR0	WC
.201	-3.400	60.80900	.11400	.11800	.11300	.11700	.12000	.12000	.51400	.51940	.24400
.201	.200	60.90900	.10900	.11900	.10900	.11800	.11900	.12900	.47190	.53070	.24400
.202	5.400	61.19200	.11400	.11400	.10900	.11900	.11800	.12400	.48320	.50690	.24400
.203	15.400	61.62200	.11400	.10100	.11900	.10100	.12700	.10900	.51910	.42990	.24900
.203	15.900	62.15900	.12900	.09700	.12900	.09700	.12900	.09700	.52350	.39440	.24600
.204	19.700	62.35100	.12200	.07900	.12100	.08000	.13000	.09000	.52780	.37340	.24600
SPAC:10.0		62.579	-.00237	.00026	-.00211	.00026	-.00263	.00079	-.51124	.00297	.00000

**VAVC 303636363636**

WPT =	4.4119	80. FT.	WPT =	43.5974	100. FT.
WPT =	19.2669	100. FT.	WPT =	77.0000	100. FT.
WPT =	21.5249	100. FT.	WPT =	16.2810	100. FT.
SCALE =					

**PARAMETRIC DATA**

BETA	=	,000	SP	=	134,000
DE	=	,000	DA	=	,000
IN	=	,000	IP	=	4,000
NET	=	,000	EP	=	3,000

[illegible]

MOY	ALPHA	CP51	CP50	CP511	CP512	CP502	MIN	MD	PR1	CP505
201	3.900	62470	64000	64400	61400	62700	66100	66100	64800	66000
202	2.800	59000	64700	57700	54700	62200	55600	55600	56500	66000
203	5.400	55000	56000	57400	54200	64400	55000	55000	59500	66000
204	10.800	61500	61100	62400	59200	64800	57900	57900	60600	66000
205	15.200	62400	61900	61000	61700	57000	55000	55000	59000	66000
206	19.600	61700	58200	62600	61900	57000	55000	55000	59000	66000
207	24.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
208	28.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
209	32.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
210	37.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
211	41.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
212	46.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
213	50.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
214	54.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
215	59.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
216	63.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
217	68.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
218	72.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
219	76.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
220	81.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
221	85.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
222	90.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
223	94.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
224	98.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
225	103.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
226	107.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
227	112.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
228	116.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
229	120.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
230	125.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
231	129.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
232	134.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
233	138.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
234	142.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
235	147.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
236	151.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
237	156.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
238	160.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
239	164.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
240	169.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
241	173.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
242	178.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
243	182.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
244	186.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
245	191.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
246	195.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
247	200.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
248	204.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
249	208.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
250	213.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
251	217.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
252	222.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
253	226.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
254	230.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
255	235.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
256	239.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
257	244.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
258	248.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
259	252.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
260	257.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
261	261.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
262	266.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
263	270.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
264	274.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
265	279.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
266	283.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
267	288.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
268	292.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
269	296.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
270	301.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
271	305.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
272	310.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
273	314.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
274	318.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
275	323.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
276	327.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
277	332.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
278	336.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
279	340.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
280	345.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
281	349.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
282	354.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
283	358.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
284	362.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
285	367.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
286	371.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
287	376.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
288	380.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
289	384.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
290	389.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
291	393.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
292	398.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
293	402.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
294	406.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
295	411.200	61600	58200	62600	61900	57000	55000	55000	59000	66000
296	415.600	61600	58200	62600	61900	57000	55000	55000	59000	66000
297	420.000	61600	58200	62600	61900	57000	55000	55000	59000	66000
298	424.400	61600	58200	62600	61900	57000	55000	55000	59000	66000
299	428.800	61600	58200	62600	61900	57000	55000	55000	59000	66000
300	433.200	61600	58200	62600	61900	57000	55000	55000	59000	66000

100-751 088 816 008 154-200 234736120708 (BLVD OFF) (440 234736120708 816 008 154-200 234736120708 (BLVD OFF))

(EAG 73) (29 SEP 73)

**VIVO ZINGALES**

WDEF = 4,419.90, FT. WAPP = 43,5974 INOES  
 LDEF = 1,2559 INOES WAPP = 7,000 INOES  
 SDEF = 37,9349 INOES WAPP = 16,2000 INOES  
 SCALE = 1,000

### PARAMETRIC DATA

BETA	=	.000	GDP	=	154.000
YE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4.000
NBT	=	.000	PC	=	3.000

RUN NO.	173/0	ENV' =	.25	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

**REFERENCE DATA**

BODY = 4.4119 50. FT. 10000 = 43.5974 INCHES  
 WING = 19.2099 INCHES 10000 = 19770 INCHES  
 TAIL = 37.3349 INCHES 10000 = 16.2000 INCHES  
 SCALE = 0.0025

### PARAMETRIC DATA

BETA	=	.000	OP	=	154.000
DE	=	.000	DA	=	.000
XL	=	.000	LIP	=	4.000
NBT	=	.000	RO	=	3.000

RUN NO.	373/5	PMV = 1.20	GRADIENT INTERVAL = -5.00	5.00
1	1.00	1.00	1.00	1.00
2	1.00	1.00	1.00	1.00
3	1.00	1.00	1.00	1.00
4	1.00	1.00	1.00	1.00
5	1.00	1.00	1.00	1.00
6	1.00	1.00	1.00	1.00
7	1.00	1.00	1.00	1.00
8	1.00	1.00	1.00	1.00
9	1.00	1.00	1.00	1.00
10	1.00	1.00	1.00	1.00
11	1.00	1.00	1.00	1.00
12	1.00	1.00	1.00	1.00
13	1.00	1.00	1.00	1.00
14	1.00	1.00	1.00	1.00
15	1.00	1.00	1.00	1.00
16	1.00	1.00	1.00	1.00
17	1.00	1.00	1.00	1.00
18	1.00	1.00	1.00	1.00
19	1.00	1.00	1.00	1.00
20	1.00	1.00	1.00	1.00
21	1.00	1.00	1.00	1.00
22	1.00	1.00	1.00	1.00
23	1.00	1.00	1.00	1.00
24	1.00	1.00	1.00	1.00
25	1.00	1.00	1.00	1.00
26	1.00	1.00	1.00	1.00
27	1.00	1.00	1.00	1.00
28	1.00	1.00	1.00	1.00
29	1.00	1.00	1.00	1.00
30	1.00	1.00	1.00	1.00
31	1.00	1.00	1.00	1.00
32	1.00	1.00	1.00	1.00
33	1.00	1.00	1.00	1.00
34	1.00	1.00	1.00	1.00
35	1.00	1.00	1.00	1.00
36	1.00	1.00	1.00	1.00
37	1.00	1.00	1.00	1.00
38	1.00	1.00	1.00	1.00
39	1.00	1.00	1.00	1.00
40	1.00	1.00	1.00	1.00
41	1.00	1.00	1.00	1.00
42	1.00	1.00	1.00	1.00
43	1.00	1.00	1.00	1.00
44	1.00	1.00	1.00	1.00
45	1.00	1.00	1.00	1.00
46	1.00	1.00	1.00	1.00
47	1.00	1.00	1.00	1.00
48	1.00	1.00	1.00	1.00
49	1.00	1.00	1.00	1.00
50	1.00	1.00	1.00	1.00
51	1.00	1.00	1.00	1.00
52	1.00	1.00	1.00	1.00
53	1.00	1.00	1.00	1.00
54	1.00	1.00	1.00	1.00
55	1.00	1.00	1.00	1.00
56	1.00	1.00	1.00	1.00
57	1.00	1.00	1.00	1.00
58	1.00	1.00	1.00	1.00
59	1.00	1.00	1.00	1.00
60	1.00	1.00	1.00	1.00
61	1.00	1.00	1.00	1.00
62	1.00	1.00	1.00	1.00
63	1.00	1.00	1.00	1.00
64	1.00	1.00	1.00	1.00
65	1.00	1.00	1.00	1.00
66	1.00	1.00	1.00	1.00
67	1.00	1.00	1.00	1.00
68	1.00	1.00	1.00	1.00
69	1.00	1.00	1.00	1.00
70	1.00	1.00	1.00	1.00
71	1.00	1.00	1.00	1.00
72	1.00	1.00	1.00	1.00
73	1.00	1.00	1.00	1.00
74</				

[illegible]



TABULATED PROPULSION SOURCE DATA NAAL-701

DATE 05 DEC 73

(CONS74) ( 29 SEP 73 )

NR-701 ORB 816C507J36124674CP (BLOWER ON)

PARAMETRIC DATA

REFERENCE DATA

BREF = 4.4119 SQ.FT. WARP = 43.9974 INCHES  
LRD = 19.2999 INCHES WARP = .0000 INCHES  
BREF = 37.9349 INCHES WARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 374/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	WEM	WOM	QWM	QUM	WIC	WOC	WFI	WFO	VC
.116	-3.200	20.69500	.12000	.12000	.12000	.12200	.12600	.12600	.88190	.88420	.14300
.117	-3.200	20.47200	.16800	.16800	.16900	.16900	.16900	.17500	1.19120	1.23290	.14200
.117	-3.200	20.63200	.20100	.20100	.20200	.20400	.20400	.21200	1.43010	1.48990	.14200
.117	-3.200	20.53800	.23200	.23200	.23300	.23400	.23400	.24300	1.64390	1.70740	.14200
.117	-3.200	20.56000	.25700	.25800	.25800	.25900	.26000	.27000	1.82630	1.89550	.14200
.116	.100	20.19200	.16400	.16700	.16900	.16900	.16800	.17400	1.18180	1.23450	.14100
.116	.100	20.32000	.20000	.20200	.20300	.20300	.20200	.21200	1.42840	1.49550	.14100
.116	.100	20.33000	.23200	.23400	.23500	.23500	.23400	.24400	1.65320	1.72770	.14100
.116	.100	20.22800	.25700	.26000	.26100	.26100	.26000	.27100	1.84290	1.92130	.14100
.116	5.300	20.32000	.11700	.12000	.12100	.12100	.12000	.12700	.85410	.90120	.14100
.117	5.300	20.44800	.16500	.16800	.16900	.16900	.16800	.17400	1.18390	1.22630	.14200
.117	5.300	20.50400	.20100	.20300	.20400	.20400	.20300	.21200	1.43260	1.49170	.14200
.117	5.300	20.45600	.23200	.23400	.23500	.23500	.23500	.24500	1.65530	1.72800	.14200
.117	5.300	20.42000	.25800	.25900	.25900	.26100	.26100	.27200	1.84030	1.91800	.14200
.117	10.500	20.51800	.11900	.11900	.11900	.11200	.12200	.11300	.86200	.79370	.14200
.117	10.500	20.44000	.16600	.16700	.16700	.16700	.16900	.17600	1.19300	1.23940	.14200
.117	10.500	20.60100	.20200	.20400	.20400	.20400	.20500	.21200	1.43960	1.48930	.14200
.117	10.500	20.51800	.23200	.23400	.23400	.23400	.23500	.24500	1.65510	1.72840	.14200
.117	10.500	20.55000	.25800	.25900	.25900	.26000	.26100	.27200	1.83440	1.91540	.14200
.117	15.700	20.59200	.11900	.11900	.11900	.11300	.12100	.10300	.85310	.72850	.14200
.117	15.700	20.67700	.16700	.16700	.16800	.16900	.16900	.17500	1.18450	1.26480	.14200
.118	15.700	20.75500	.20200	.20400	.20400	.20400	.20400	.21200	1.42780	1.50940	.14300
.118	15.700	20.74200	.23200	.23400	.23400	.23300	.23500	.24600	1.64760	1.71930	.14300
.118	15.700	20.75600	.25700	.25800	.25900	.25800	.26100	.27300	1.82350	1.90960	.14300
.118	18.800	20.75400	.11900	.11900	.12000	.11900	.12100	.10100	.84970	.71210	.14300
.118	18.800	20.75000	.16600	.16700	.16700	.16800	.16800	.17400	1.17800	1.26310	.14300
.118	18.800	20.71200	.20100	.20200	.20200	.20300	.20300	.21000	1.42270	1.51230	.14300
.118	18.800	20.90000	.23400	.23400	.23500	.23600	.23600	.24700	1.64470	1.73140	.14300
.118	18.800	20.83000	.25800	.25900	.25900	.26100	.26100	.27400	1.81960	1.91340	.14300
.118	15.800	20.50000	.10574	.10574	.10561	.10560	.10512	.10768	.03995	.04654	-.00036
			-.09588								

NR-701 ORB 816C507J3612687-CP (BLOWER ON)

(DDMS74) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 90.FT. WARP = 43.9974 INCHES  
 LREF = 19.2999 INCHES WARP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZWAP = 16.2920 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 374/ 0 RVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CP31	CP30	CP311	CP312	CP301	CP302	MIN	MON	PRT1	PRT0
.110	-3.200	-0.7900	-0.4400	-0.7200	-0.3600	-0.5500	-0.2900	.11700	.11800	.99910	.99990
.111	-3.200	-0.9150	-1.1730	-1.0190	-0.8100	-1.0210	-0.9800	.15900	.16400	.99910	.99960
.112	-3.200	-1.7670	-1.9270	-1.9380	-1.5820	-1.9540	-1.9070	.19300	.20100	.99900	.99950
.113	-3.200	-2.2460	-2.8890	-2.9140	-2.3990	-2.9190	-2.8470	.22300	.23200	.99900	.99950
.114	-3.200	-3.3190	-3.8240	-3.8550	-3.1820	-3.8690	-3.7780	.25000	.26000	.99900	.99950
.115	.100	-0.5490	-0.9690	-1.0530	-0.8430	-1.0270	-0.9600	.15600	.16400	.99860	.99930
.116	.100	-1.8700	-1.9480	-1.9790	-1.6210	-1.9770	-1.9260	.19100	.20000	.99860	.99960
.117	.100	-2.7380	-2.9670	-2.9970	-2.4860	-2.9500	-2.9300	.22300	.23400	.99860	.99960
.118	.100	-3.6450	-3.9450	-3.9710	-3.3190	-3.9840	-3.9100	.25000	.26100	.99860	.99960
.119	.100	-0.7240	-0.7720	-1.2590	-0.5800	-1.1030	-0.5400	.11300	.11900	.99840	.99960
.120	.100	-0.9570	-0.9750	-1.1170	-0.8480	-1.0570	-0.9200	.15800	.16300	.99850	.99950
.121	.100	-1.8220	-1.9430	-2.0710	-1.6420	-2.0730	-1.8830	.19300	.20100	.99860	.99950
.122	.100	-2.7470	-2.9710	-3.1770	-2.4940	-2.9990	-2.9440	.22400	.23500	.99860	.99960
.123	.100	-3.6320	-3.9330	-3.9570	-3.3070	-3.9640	-3.9200	.25100	.26200	.99860	.99960
.124	.100	-0.2930	-0.6400	-0.7200	.0130	-0.6870	-0.5200	.11400	.10800	.99920	.99950
.125	.100	-1.7290	-1.7290	-1.7290	-0.8770	-1.1040	-0.9460	.15900	.16500	.99910	.99950
.126	.100	-1.9210	-1.9330	-1.9410	-1.5930	-2.0530	-1.8130	.19400	.20100	.99910	.99950
.127	.100	-2.6890	-2.9670	-2.9670	-2.4170	-3.0360	-2.8830	.22400	.23400	.99910	.99960
.128	.100	-3.5520	-3.9260	-3.8970	-3.2070	-3.9760	-3.8770	.25100	.26300	.99910	.99950
.129	.100	.0130	-1.1460	-0.7360	.0640	-1.2140	-0.8780	.11300	.09700	.99930	.98680
.130	.100	-0.8770	-2.2990	-0.9680	-0.7420	-2.5050	-2.0920	.15900	.14900	.99930	.98240
.131	.100	-1.7180	-3.1920	-1.9190	-1.5240	-3.4580	-2.9270	.19300	.18000	.99930	.98120
.132	.100	-2.6320	-2.9470	-2.9470	-2.3670	-3.0920	-2.8030	.22500	.23500	.99930	.99940
.133	.100	-3.4750	-3.9770	-3.8220	-3.1270	-3.0950	-3.8040	.25000	.26300	.99930	.99940
.134	.100	.0180	-1.2340	-0.5570	.0730	-1.4170	-1.0570	.11300	.09600	.99940	.98460
.135	.100	-0.8670	-2.7110	-0.9770	-0.7190	-2.9870	-2.4350	.15800	.14000	.99940	.97730
.136	.100	-1.7720	-3.7600	-1.8960	-1.5040	-4.1140	-3.4150	.19200	.17400	.99930	.97430
.137	.100	-2.6270	-4.7090	-2.8930	-2.3480	-5.0670	-4.3570	.22900	.21200	.99930	.97410
.138	.100	-3.4870	-5.6470	-3.8070	-3.1120	-5.9290	-5.3550	.25000	.24400	.99930	.97480
.139	.100	-1.5120	-1.6770	-1.6380	-1.1362	-1.6056	-1.1596	.09500	.09598	-0.0713	.07703

GRADIENT









(00N375) ( 29 SEP 73 )

NR-701 ORB 816507J3612487-3P (BLOWER 30)

PARAMETRIC DATA

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2500 INCHES  
 SCALE = .0475

BETA =  
 DE =  
 X/L =  
 NBT =

RUN NO. 375/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

W/CH	ALPHA	CP81	CP80	CP811	CP812	CP801	CP802	MIN	MON	IRTI	PRTO
.165	-3.400	.27600	.25100	.22700	.19700	.23800	.26300	.14000	.14700	.99870	.99950
.165	-3.400	.21700	.23600	.25400	.17900	.24400	.22900	.17700	.18200	.99880	.99970
.165	-3.500	-.64400	-.70300	-.72300	-.56500	-.75000	-.69100	.20800	.21500	.99850	.99950
.165	-3.400	-1.07200	-1.17900	-1.19300	-.95100	-1.19500	-1.16300	.23500	.24400	.99870	.99970
.165	-3.400	-1.51100	-1.65900	-1.67400	-1.34900	-1.68100	-1.63700	.26700	.27100	.99850	.99950
.164	.200	.15300	.24800	.16500	.14700	.21600	.28700	.13600	.14100	.99690	.99960
.164	.200	-.25700	.23300	-.30300	-.21200	-.25800	-.20700	.17400	.18200	.99720	.99970
.164	.200	-.69100	-.71900	-.77500	-.50700	-.60700	-.73000	.20500	.21600	.99720	.99960
.165	.100	-1.11100	-1.19400	-1.23400	-.98800	-1.20700	-1.18200	.23300	.24500	.99720	.99960
.164	.100	-1.55700	-1.67100	-1.72000	-1.39300	-1.68800	-1.65400	.25800	.27100	.99730	.99970
.165	5.300	.17500	.24500	.18300	.16800	.22100	.26900	.13500	.14100	.99710	.99960
.165	5.300	-.24100	-.20600	-.28900	-.19200	-.25300	-.15800	.17300	.18000	.99720	.99950
.165	5.300	-.68300	-.69600	-.77300	-.59200	-.74200	-.65100	.20600	.21500	.99730	.99960
.165	5.300	-1.13600	-1.21500	-1.26600	-1.00600	-1.23600	-1.19500	.23500	.24600	.99730	.99960
.165	5.300	-1.56700	-1.69300	-1.73400	-1.40100	-1.71000	-1.67600	.26700	.27300	.99730	.99940
.166	10.600	.24500	-.24100	.23200	.25700	-.32600	-.15500	.13700	.12200	.99870	.99960
.165	10.600	-.18300	-.69400	-.72900	-.12400	-.28300	-.19600	.20700	.18300	.99870	.99940
.165	10.600	-.52500	-.72900	-.52500	-.52500	-.77100	-.61600	.23700	.21500	.99870	.99950
.166	10.600	-1.07900	-1.20900	-1.21900	-.93900	-1.26800	-1.15000	.26700	.24600	.99850	.99930
.166	10.600	-1.47800	-1.66500	-1.65600	-1.30100	-1.70600	-1.62400	.28700	.27200	.99850	.99940
.166	15.800	.29500	-.55500	.26600	.32400	-.68300	-.42700	.13500	.11300	.99920	.99900
.166	15.800	-.17800	-1.34900	-.24700	-.10900	-1.53300	-1.10300	.17700	.15700	.99920	.97140
.176	15.800	-.59600	-1.92900	-.70100	-.49000	-2.16300	-1.39400	.20700	.18600	.99910	.96720
.166	15.900	-1.01900	-2.46200	-1.16300	-.87400	-2.72400	-2.20100	.23500	.21800	.99890	.96440
.166	15.900	-1.46400	-2.94000	-1.65000	-1.27800	-3.17500	-2.70400	.26100	.24700	.99890	.96450
.166	18.900	.28900	-.69600	.25400	.32400	-.82400	-.56800	.13500	.11200	.99910	.97590
.166	18.900	-.17300	-1.58100	-.24600	-.10100	-1.78900	-1.37300	.17700	.15400	.99910	.96640
.166	18.900	-.59700	-2.30700	-.73800	-.48500	-2.57800	-2.03600	.20800	.18500	.99930	.95930
.167	18.900	-1.02500	-2.91400	-1.17600	-.87400	-3.23900	-2.58900	.23600	.21300	.99890	.95420
.167	18.900	-1.47000	-3.48600	-1.66100	-1.27900	-3.82800	-3.14400	.26200	.24600	.99890	.95300
	GRADIENT	-.01004	.00059	-.01099	-.00909	-.00906	.00226	-.00098	-.00005	-.00042	.00002



## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

## REFERENCE DATA

BRP = 4.4119 SQ.FT. XWRP = 43.5974 INCHES  
LWRP = 19.2999 INCHES YWRP = .0000 INCHES  
BRP = 37.9349 INCHES ZWRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 375/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.163	-3.400	40.75800	.99940	.99930	.99890	.99870	.99790	.99820	.99870	.99880	.99350
.163	-3.500	40.63200	.99950	.99950	.99920	.99890	.99800	.99830	.99890	.99900	.99370
.162	-3.500	40.83700	.99940	.99930	.99890	.99840	.99790	.99790	.99860	.99870	.99340
.165	-3.400	40.61900	.99960	.99950	.99910	.99870	.99750	.99800	.99880	.99900	.99370
.163	-3.400	40.83000	.99950	.99940	.99900	.99850	.99750	.99780	.99860	.99870	.99350
.164	.200	40.52300	.99830	.99780	.99660	.96610	.99540	.99640	.99650	.99690	.99710
.164	.200	40.45100	.99870	.99820	.99680	.99610	.99560	.99650	.99660	.99730	.99760
.164	.200	40.40600	.99870	.99810	.99680	.99610	.99540	.99630	.99650	.99740	.99770
.165	.100	40.60300	.99890	.99830	.99680	.99610	.99540	.99630	.99650	.99740	.99770
.164	.100	40.43300	.99920	.99870	.99650	.99600	.99530	.99620	.99640	.99730	.99760
.165	5.300	40.88500	.99680	.99690	.99650	.99650	.99690	.99520	.99570	.99820	.99860
.165	5.300	40.86100	.99720	.99690	.99650	.99650	.99720	.99520	.99580	.99840	.99890
.165	5.300	40.68300	.99700	.99680	.99650	.99650	.99720	.99490	.99560	.99850	.99890
.165	5.300	40.57700	.99730	.99680	.99650	.99650	.99720	.99490	.99560	.99840	.99890
.165	5.300	40.84100	.99700	.99680	.99650	.99650	.99720	.99490	.99560	.99840	.99890
.166	10.600	41.13700	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870
.166	10.600	41.15100	.99880	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870
.166	10.600	40.95000	.99880	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870
.166	10.600	41.14800	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870
.166	10.600	41.14100	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870	.99870
.166	15.800	41.28400	.99930	.99930	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	15.800	41.45100	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	15.800	41.25100	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	15.800	41.43200	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910
.166	15.800	41.44400	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	15.800	41.45600	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	18.900	41.39800	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	18.900	41.38800	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	18.900	41.60100	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910
.167	18.900	41.58300	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910
.167	18.900	41.58300	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910	.99910
GRADIENT			-0.0021	-0.0035	-0.0064	-0.0070	-0.0061	-0.0047	-0.0061	-0.0044	-0.0026

NR-751 ORR B16C50733C124874CP (BLOWER CN)

(54 DSCF) (29 SEP 73)

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
DE	=	.000	DA	=	.000
XVL	=	.000	LIP	=	4.000
NBT	=	.000	RD	=	3.000

RUN NO. 375/5 RUL = .17 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]









(FMA378) (29 SEP 75)

**REFERENCE DATA**

SFEF = 4.419 90. FT.    XDRP = 43.5974 INCHES  
 LDRP = 19.2999 INCHES    NDRP = .0000 INCHES  
 BDRP = 37.2349 INCHES    ZDRP = 15.2100 INCHES  
 SCALE = .2409

16-71 099 9140507361246746 (E-050) (M)

BETA	=	.000	GPB	=	134,000
DE	=	.000	DA	=	.000
DL	=	.000	LIP	=	4,000
NET	=	.000	ED	=	3,000

## PARAMETRIC DATA

55-5- = TANGENT DISTANCE 52' = 706 3/4' @ 14.4

[illegible]



DATE 04 DEC 73 TABULATED PRODUCTION SOURCE DATA MAIL-701

(DDG77) ( 29 SEP 73 )

NP-701 CRB 816C307136124874P

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 OA = .000  
K/L = .000 L/P = 4.000  
M/T = .000 R/O = 3.000

## REFERENCE DATA

BRDF = 4.4119 80.FT. WAPP = 43.5974 INCHES  
LREF = 19.2999 INCHES WAPP = .0700 INCHES  
BRDF = 37.9349 INCHES ZAPP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 377/0 RUL = .00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	WTH	WCH	QCH	WIC	WOC	MPRI	MPRO	VC
.000	-3.900	.00000	.13200	.13200	.13400	.13900	.14100	.13500	.14140	.00000
.000	-3.900	.00000	.18700	.18800	.19100	.19100	.20000	.19100	.20000	.00000
.000	-3.900	.00000	.23200	.23300	.23600	.23600	.24800	.23600	.24800	.00000
.000	-3.900	.00000	.26900	.26900	.26900	.26900	.28100	.26900	.28100	.00000
.000	-3.900	.00000	.29200	.29200	.29200	.29200	.30900	.29200	.30900	.00000
.000	-3.900	.00000	.31700	.31700	.32200	.32200	.33600	.32200	.33600	.00000
.000	-3.900	.00000	.33700	.33700	.34200	.34200	.35600	.34200	.35600	.00000
GRADIENT			-0.3125	-0.3125	-0.3153	-0.3153	-0.3125	-0.3125	-0.3125	.00000

(DDG77) ( 29 SEP 73 )

NP-701 CRB 816C307136124874P

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 OA = .000  
K/L = .000 L/P = 4.000  
M/T = .000 R/O = 3.000

## REFERENCE DATA

BRDF = 4.4119 80.FT. WAPP = 43.5974 INCHES  
LREF = 19.2999 INCHES WAPP = .0700 INCHES  
BRDF = 37.9349 INCHES ZAPP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 377/0 RUL = .00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	QPS1	QPS2	QPS11	QPS12	QPS21	QPS22	WCH	MPRI	MPRO	VC
.000	-3.900	-.24100	-.26400	-.26300	-.22000	-.26300	-.26100	.13300	.13300	.14140	.00000
.000	-3.900	-.42800	-.53500	-.53200	-.44900	-.54100	-.53200	.19100	.19100	.20000	.00000
.000	-3.900	-.79900	-.82400	-.81900	-.68100	-.82400	-.81500	.23800	.23800	.24800	.00000
.000	-3.900	-.96300	-.97800	-.97700	-.80900	-.97800	-.97000	.27900	.27900	.28100	.00000
.000	-3.900	-1.21900	-1.33500	-1.32800	-1.10800	-1.32800	-1.32400	.29100	.29100	.30900	.00000
.000	-3.900	-1.45700	-1.59500	-1.58800	-1.32800	-1.58800	-1.58100	.33600	.33600	.33600	.00000
.000	-3.900	-1.66100	-1.81400	-1.80900	-1.51900	-1.80900	-1.80100	.35700	.35700	.35600	.00000
GRADIENT								-0.3153	-0.3153	-0.3125	.00000





DATE 05 DEC 73

TABULATED PRODUCTION SOURCE DATA NUAL-701

PAGE 23

NR-701 CRB 816C507J3612487+CP

(CDBG78) ( 29 SEP 73 )

REFERENCE DATA

WGT = 4.4119 50.0 FT. WAPP = 43.9974 INCHES  
LWT = 19.2999 INCHES WAPP = .0000 INCHES  
BWT = 37.9349 INCHES ZAPP = 16.2000 INCHES  
SCALE = .0005

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 PD = 3.000

PARAMETRIC DATA

RUN NO. 378 / 0 RVAL = .12 GRADIENT INTERVAL = -5.00 / 5.00

WAOH	ALPHA	Q	WEN	WCH	QWEN	QWCH	WLC	WOC	WPR1	WPRO	VC
.117	-3.900	20.36800	.15500	.15700	.15700	.15000	.15700	.16300	1.11290	1.15400	.14100
.117	-3.900	20.44300	.20500	.20700	.20700	.20000	.20700	.21000	1.48270	1.52080	.14200
.117	-3.900	20.51400	.24300	.24500	.24500	.24000	.24000	.23700	1.73550	1.80090	.14200
.117	-3.900	20.57800	.27800	.27900	.27900	.28100	.28000	.29100	1.96530	2.04820	.14200
.117	-3.900	20.53200	.30500	.30600	.30600	.30700	.30700	.31900	2.15840	2.24670	.14200
.117	-3.900	20.52900	.32600	.32900	.32900	.33000	.33000	.34400	2.32360	2.41990	.14200
.117	-3.900	20.45800	.34700	.34900	.34900	.35100	.35400	.36900	2.47190	2.57210	.14200
.117	-3.900	20.56200	.36200	.36400	.36400	.36600	.36800	.38700	2.66690	2.77590	.14200
.117	-3.900	20.57400	.38500	.38800	.38800	.39000	.39200	.40400	2.80040	2.91650	.14200
.117	-3.900	20.51100	.40000	.40000	.40000	.40000	.40000	.40000	.00000	.00000	-.00000

GRADIENT

NR-701 CRB 816C507J3612487+CP

(CDBG78) ( 29 SEP 73 )

REFERENCE DATA

WGT = 4.4119 50.0 FT. WAPP = 43.9974 INCHES  
LWT = 19.2999 INCHES WAPP = .0000 INCHES  
BWT = 37.9349 INCHES ZAPP = 16.2000 INCHES  
SCALE = .0005

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 PD = 3.000

PARAMETRIC DATA

RUN NO. 378 / 0 RVAL = .12 GRADIENT INTERVAL = -5.00 / 5.00

WAOH	ALPHA	QPS1	QPS0	QPS11	QPS12	QPS01	QPS02	WEN	WPR1	WPRO	PRTO
.117	-3.900	-1.66900	-1.75300	-1.77000	-1.81100	-1.76800	-1.75900	.14900	.15300	.99910	.99960
.117	-3.900	-1.67700	-2.05000	-2.07100	-1.68400	-2.07800	-2.03100	.19800	.20300	.99910	.99960
.117	-3.900	-3.06800	-3.39500	-3.36800	-2.77000	-3.39700	-3.32100	.23500	.24700	.99990	.99990
.117	-3.900	-4.26700	-4.66100	-4.66300	-3.87000	-4.71200	-4.61900	.27100	.28300	.99990	.99990
.117	-3.900	-5.45100	-5.89900	-5.89800	-4.90000	-5.95700	-5.84200	.30700	.31700	.99990	.99990
.117	-3.900	-6.49200	-7.11100	-7.08200	-5.91100	-7.18100	-7.03900	.32800	.34100	.99990	.99990
.117	-3.900	-7.57600	-8.28100	-8.25300	-6.85900	-8.36600	-8.15900	.35700	.36600	.99990	.99990
.117	-3.900	-8.34000	-9.11000	-9.08700	-7.59400	-9.19700	-9.09900	.36700	.38400	.99990	.99990
.117	-3.900	-8.58700	-9.40900	-9.38900	-7.81600	-9.51300	-9.31500	.37100	.39000	.99990	.99990
.117	-3.900	-9.00000	-9.80000	-9.77700	-8.00000	-9.90000	-9.70000	.37100	.39000	.99990	.99990

GRADIENT

NR-701 ORB 816C507J3612-874CP

(EDN378) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 80.FT. 100PP = 43.9974 INCHES  
 LREF = 19.2999 INCHES 100PP = .0000 INCHES  
 BRDF = 37.9349 INCHES 200PP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 378/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19
.117	-3.300	20.36800	.99950	.99950	.99950	.99910	.99850	.99880	.99970	.99920	.99910
.117	-3.300	20.44300	.99950	.99950	.99950	.99910	.99850	.99880	.99970	.99920	.99910
.117	-3.300	20.51400	.99960	.99960	.99950	.99910	.99820	.99830	.99970	.99930	.99920
.117	-3.300	20.57800	.99950	.99950	.99950	.99970	.99810	.99830	.99970	.99920	.99920
.117	-3.300	20.53200	.99950	.99950	.99950	.99910	.99810	.99840	.99970	.99930	.99920
.117	-3.300	20.52500	.99950	.99950	.99940	.99910	.99810	.99830	.99970	.99930	.99930
.117	-3.300	20.49600	.99960	.99960	.99950	.99910	.99820	.99830	.99970	.99930	.99930
.117	-3.300	20.56300	.99950	.99950	.99940	.99910	.99820	.99830	.99970	.99930	.99930
.117	-3.300	20.50400	.99950	.99950	.99950	.99970	.99810	.99820	.99970	.99930	.99930
.117	GRADIENT	.00000	.00001	.00001	.00000	.00001	.00000	.00001	.00001	.00000	.00000

NR-701 ORB 816C507J3612-874CP

(EDN378) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 80.FT. 100PP = 43.9974 INCHES  
 LREF = 19.2999 INCHES 100PP = .0000 INCHES  
 BRDF = 37.9349 INCHES 200PP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 378/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PR10	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19
.117	-3.300	20.36800	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99970
.117	-3.300	20.44300	.99960	.99950	.99950	.99960	.99950	.99970	.99950	.99960	.99970
.117	-3.300	20.51400	.99960	.99960	.99960	.99960	.99960	.99970	.99960	.99970	.99980
.117	-3.300	20.57800	.99950	.99950	.99950	.99950	.99960	.99960	.99950	.99960	.99960
.117	-3.300	20.53200	.99950	.99960	.99950	.99960	.99950	.99970	.99950	.99960	.99970
.117	-3.300	20.52500	.99950	.99950	.99950	.99950	.99960	.99960	.99950	.99960	.99970
.117	-3.300	20.49600	.99960	.99960	.99950	.99960	.99960	.99970	.99960	.99960	.99970
.117	-3.300	20.56300	.99950	.99950	.99950	.99960	.99960	.99970	.99950	.99960	.99970
.117	-3.300	20.50400	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99970
.117	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00001	.00000	.00000

[illegible]





(200340) ( 29 SEP 73 )

00-771 788 818307 J361240700

### PARAMETRIC DATA

BETA	=	.000	CAP	=	154.000
OE	=	.000	DA	=	.000
VL	=	.000	LTP	=	4.000
NBT	=	.000	RD	=	3.000

RUN NO. 300/ 0 RUN = .00 GRADIENT INTERVAL = -5.00/ 5.00

## REFERENCE DATA

SPRY	=	4,4119	NO-PT.	1949	=	43,9974	NO-ES
LEBY	=	19,1999	NO-ES	1949	=	.0770	NO-ES
SPRY	=	37,9349	NO-ES	2049	=	16,2000	NO-ES
SCALE	=						.0405

[illegible]

( 29 : 33 : 73 )

8-77: ONA B:6C507J3C12A87+CP

### PARAMETRIC DATA

BETA	=	.0000	COMP	=	154.0000
DE	=	.0000	DA	=	.0000
KL	=	.0000	LTP	=	4.0000
NBT	=	.0000	PC	=	3.0000

RUN NO.	VAL OF $\sigma$	VAL =	GRADIENT INTERVAL =	-5.00/	5.00
1	0.00				
2	0.00				
3	0.00				
4	0.00				
5	0.00				
6	0.00				
7	0.00				
8	0.00				
9	0.00				
10	0.00				
11	0.00				
12	0.00				
13	0.00				
14	0.00				
15	0.00				
16	0.00				
17	0.00				
18	0.00				
19	0.00				
20	0.00				
21	0.00				
22	0.00				
23	0.00				
24	0.00				
25	0.00				
26	0.00				
27	0.00				
28	0.00				
29	0.00				
30	0.00				
31	0.00				
32	0.00				
33	0.00				
34	0.00				
35	0.00				
36	0.00				
37	0.00				
38	0.00				
39	0.00				
40	0.00				
41	0.00				
42	0.00				
43	0.00				
44	0.00				
45	0.00				
46	0.00				
47	0.00				
48	0.00				
49	0.00				
50	0.00				
51	0.00				
52	0.00				
53	0.00				
54	0.00				
55	0.00				
56	0.00				
57	0.00				
58	0.00				
59	0.00				
60	0.00				
61	0.00				
62	0.00				
63	0.00				
64	0.00				
65	0.00				
66	0.00				
67	0.00				
68	0.00				
69	0.00				
70	0.00				
71	0.00				
72	0.00				
73	0.00				
74	0.00				
75	0.00				
76	0.00				
77	0.00				
78	0.00				
79	0.00				
80	0.00				
81	0.00				
82	0.00				
83	0.00				
84	0.00				
85	0.00				
86	0.00				
87	0.00				
88	0.00				
89	0.00				
90	0.				

## REFERENCE DATA

9997 =	4,4119	80.47.	9999 =	43,9974	INCHES
9997 =	19,2999	INCHES	9999 =	.0000	INCHES
9997 =	37,9349	INCHES	9999 =	16,2020	INCHES
9997 =			9999 =		

MON	ALPHA	CP31	CP50	CP511	CP512	CP504	CP502	MIN	MON	PR11	PR10
0.000	-3.500	-0.0000	-0.0000	-0.0000	-0.74400	-0.90700	-0.69200	-0.24900	-0.24900	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.73600	-0.90000	-0.69300	-0.25000	-0.25000	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.72800	-0.89300	-0.69400	-0.25100	-0.25100	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.72000	-0.88600	-0.69500	-0.25200	-0.25200	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.71200	-0.87900	-0.69600	-0.25300	-0.25300	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.70400	-0.87200	-0.69700	-0.25400	-0.25400	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.69600	-0.86500	-0.69800	-0.25500	-0.25500	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.68800	-0.85800	-0.69900	-0.25600	-0.25600	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.68000	-0.85100	-0.70000	-0.25700	-0.25700	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.67200	-0.84400	-0.70100	-0.25800	-0.25800	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.66400	-0.83700	-0.70200	-0.25900	-0.25900	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.65600	-0.83000	-0.70300	-0.26000	-0.26000	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.64800	-0.82300	-0.70400	-0.26100	-0.26100	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.64000	-0.81600	-0.70500	-0.26200	-0.26200	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.63200	-0.80900	-0.70600	-0.26300	-0.26300	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.62400	-0.80200	-0.70700	-0.26400	-0.26400	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.61600	-0.79500	-0.70800	-0.26500	-0.26500	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.60800	-0.78800	-0.70900	-0.26600	-0.26600	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.60000	-0.78100	-0.71000	-0.26700	-0.26700	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.59200	-0.77400	-0.71100	-0.26800	-0.26800	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.58400	-0.76700	-0.71200	-0.26900	-0.26900	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.57600	-0.76000	-0.71300	-0.27000	-0.27000	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.56800	-0.75300	-0.71400	-0.27100	-0.27100	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.56000	-0.74600	-0.71500	-0.27200	-0.27200	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.55200	-0.73900	-0.71600	-0.27300	-0.27300	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.54400	-0.73200	-0.71700	-0.27400	-0.27400	.99990	.99990
.000	.000	-0.000	-0.000	-0.000	-0.53600	-0.72500	-0.71800	-0.27500	-0.27500	.99990	.99990
.000	.000	-0.000	-0.000	-0							

NR-701 ORB B16C507J3G12W87+GP

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 380/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.000	-3.500	.00000	.99990	.99990	1.00000	.99990	.99990	.99990	1.00000	.99990	.99990
.000	.000	.00000	.99990	1.00000	1.00000	.99990	.99990	.99990	.99990	.99990	1.00000
.000	4.900	.00000	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	.99990	.99990
.000	10.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99980
.000	14.900	.00000	.99990	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	.99980
.000	18.000	.00000	1.00000	1.00000	1.00000	.99990	.99990	.99990	.99990	.99990	.99980
GRADIENT		.00000	.00000	.00001	-.00001	.00000	.00001	.00000	-.00001	.00000	-.00000

NR-701 ORB B16C507J3G12W87+GP

(EDN380) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 380/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.000	-3.500	.00000	.99990	1.00000	.99990	1.00000	.99990	.99990	.99990	.99990	.99990
.000	.000	.00000	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	1.00000	.99990
.000	4.900	.00000	.99990	1.00000	.99990	1.00000	1.00000	.99990	.99990	.99990	.99990
.000	10.000	.00000	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	.99990	.99990
.000	14.900	.00000	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	1.00000	.99990
.000	18.000	.00000	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	1.00000	.99990
GRADIENT		.00000	.00001	.00000	.00000	.00000	.00001	.00000	.00000	-.00000	.00000



DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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(CDN581) ( 29 SEP 73 )

NR-701 ORB B16C507J3612W87+CP

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2700 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 381/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	W/M	WOM	Q/M	Q/M	W/C	WOC	MFRI	MFRO	WC
.000	-3.500	.00000	.33800	.33800	.34200	.34200	.31100	.32600	.31160	.32620	.00000
.000	.000	.00000	.33700	.33700	.34100	.34100	.31100	.32600	.31170	.32620	.00000
.000	5.000	.00000	.34000	.34100	.34400	.34500	.31300	.32700	.31380	.32720	.00000
.000	10.000	.00000	.33900	.33800	.34300	.34200	.31100	.32600	.31150	.32620	.00000
.000	15.000	.00000	.33800	.33800	.34200	.34200	.31100	.32600	.31130	.32620	.00000
.000	17.900	.00000	.33800	.33700	.34200	.34100	.31000	.32500	.31090	.32550	.00000
GRADIENT		.00000	.00026	.00036	.00026	.00038	.00025	.00012	.00027	.00012	.00000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2700 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

(DONG81) ( 29 SEP 73 )

NR-701 ORB B16C507J3612W87+CP

RUN NO. 381/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.000	-3.500	-1.33900	-1.48000	-1.46500	-1.21300	-1.48800	-1.47200	.30700	.32300	.99990	.99990
.000	.000	-1.34000	-1.47900	-1.46700	-1.21300	-1.49100	-1.46700	.30700	.32300	.99990	.99990
.000	5.000	-1.36000	-1.48900	-1.47600	-1.24400	-1.50000	-1.47800	.30900	.32400	.99990	1.00000
.000	10.000	-1.34300	-1.47900	-1.47000	-1.21600	-1.49000	-1.46700	.30600	.32300	.99970	.99990
.000	15.000	-1.34100	-1.48000	-1.47000	-1.21100	-1.49300	-1.46600	.30600	.32300	.99980	.99990
.000	17.900	-1.34100	-1.47300	-1.46400	-1.21900	-1.48100	-1.46400	.30600	.32200	.99960	.99990
GRADIENT		-.00258	-.00112	-.00133	-.00382	-.00144	-.00081	.00025	.00012	.00000	.00001

NR-751 088 B16C507J3G124874CP

(E000381) (29 SEP 73)

REFERENCE DATA

GREY = 4.419 SQ. FT. WARP = 43.5974 INCHES  
 LPEF = 19.2993 INCHES WARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZWAP = 16.2070 INCHES  
 SCALE = .0425

RUN NO. 381/5 P-W = .00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19
.000	-3.500	.00000	.99999	1.00000	1.00000	.99990	.99990	1.00000	.99990	.99990	.99990
.000	.000	.00000	.99999	1.00000	1.00000	1.00000	.99990	1.00000	1.00000	.99990	.99990
.000	5.000	.00000	.99990	.99990	1.00000	.99990	.99990	1.00000	1.00000	.99990	.99990
.000	10.000	.00000	.99990	1.00000	1.00000	.99990	.99887	1.00000	1.00000	1.00000	1.00000
.000	15.000	.00000	.99990	1.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	17.500	.00000	.99990	1.00000	1.00000	1.00000	.99830	.99990	.99990	.99990	.99990
GRACENT			.00000	.00000	.00000	-.00000	-.00002	.00000	.00001	.00000	.00000

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154,000
DE	=	.000	DA	=	.000
X/L	=	.000	LTP	=	4,000
NBT	=	.000	RD	=	3,000

### REFERENCE DATA

SREF =	4.4119	SQ.FT.	XRRP =	43,5974	INCHES
UREF =	19.2999	INCHES	YRRP =	.0000	INCHES
BREF =	37.9349	INCHES	ZRRP =	16.2000	INCHES
SCALE =	.0405				

RUN NO. 381/0 RMV = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PR101	PR102	PR103	PR104	PR105	PR106	PR107	PR108	PR109
.000	-3.500	.00000	.99970	1.00000	.99990	1.00000	1.00000	.99999	.99990	1.00000	.99990
.000	.000	.00000	.99970	1.00000	.99990	1.00000	1.00000	.99999	.99990	1.00000	.99990
.000	5.000	.00000	.99990	1.00000	1.00000	1.00000	1.00000	.99999	.99990	1.00000	1.00000
.000	10.000	.00000	.99990	1.00000	1.00000	1.00000	1.00000	.99999	.99990	1.00000	.99990
.000	15.000	.00000	.99990	1.00000	1.00000	1.00000	1.00000	.99999	1.00000	1.00000	.99990
.000	17.900	.00000	.99990	1.00000	1.00000	1.00000	1.00000	.99999	1.00000	1.00000	1.00000
GRADIENT		.00000	.00002	.00000	.00001	.00000	.00000	.00000	.00000	.00000	.00001

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
DE	=	.000	DA	=	.000
XL	=	.000	LIP	=	4.000
NBT	=	.000	RD	=	3.000

REF ID: A66907

( FMW381 ) ( 29 SEP 73 )

DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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(CONG82) ( 29 SEP 73 )

NR-701 ORB 816C507J3612487+CP

REFERENCE DATA

SRPF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRPF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 XL = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 382/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	W/M	WOM	Q/M	Q/M	WTC	VOC	MFRI	MFRO	WC
.000	-3.500	.00000	.40400	.40500	.40900	.41000	.35700	.37900	.35720	.37360	.00000
.000	.000	.00000	.40600	.40700	.41100	.41200	.35800	.37900	.35830	.37540	.00000
.000	5.000	.00000	.40900	.40600	.41000	.41100	.35800	.37900	.35840	.37540	.00000
.000	9.900	.00000	.40600	.40600	.41200	.41100	.35400	.37400	.35460	.37470	.00000
.000	14.900	.00000	.40400	.40500	.41000	.41000	.35800	.37400	.35830	.37470	.00000
.000	17.900	.00000	.40500	.40500	.41000	.41000	.35800	.37400	.35810	.37440	.00000
GRADIENT	.00000	.00010	.00010	.00010	.00010	.00010	.00011	.00022	.00013	.00020	.00000

REFERENCE DATA

SRPF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRPF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 XL = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 382/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CP90	CPS11	CPS12	CP901	CP902	MIN	MON	PRT1	PRT0
.000	-3.500	-1.80900	-2.00200	-1.90500	-1.82300	-1.98800	-2.01600	.35900	.37900	.99990	.99990
.000	.000	-1.82100	-2.02200	-1.99400	-1.84700	-2.03600	-2.00800	.38100	.38100	.99990	.99990
.000	5.000	-1.82300	-2.02200	-1.99200	-1.85400	-2.03700	-2.00700	.38100	.38100	.99990	.99990
.000	9.900	-1.83700	-2.01400	-1.99300	-1.88100	-2.02000	-2.00700	.38100	.38100	.99990	.99990
.000	14.900	-1.83000	-2.01400	-1.99400	-1.86600	-2.02300	-2.00500	.38100	.38100	.99990	.99990
.000	17.900	-1.82500	-2.01000	-1.99700	-1.86000	-2.02100	-1.99900	.38100	.38100	.99990	.99990
GRADIENT	.00156	-.00219	.00036	.00036	-.00034	-.00038	.00100	.00011	.00022	.00000	.00000

(ED0082) ( 29 SEP 73 )

NR-701 ORB B16C507J36124874CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

REFERENCE DATA

SPEF = 4.4119 SQ. FT. XARP = 43.9974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .5405

RUN NO. 382/ 0 RVAL = .00 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.000	-3.500	.00000	.99990	1.00000	1.00000	1.00000	.99990	.99990	.99990	.99990	.99990
.000	.000	.00000	.99990	1.00000	1.00000	.99990	.99990	.99990	.99990	1.00000	.99990
.000	5.000	.00000	.99990	1.00000	1.00000	.99990	.99990	.99990	.99990	.99990	.99990
.000	9.900	.00000	.99990	1.00000	1.00000	.99990	.98820	.99990	.99990	.99990	.99990
.000	14.900	.00000	.99990	1.00000	1.00000	.99990	.99820	1.00000	1.00000	1.00000	1.00000
.000	17.900	.00000	.99990	1.00000	1.00000	.99990	.99800	1.00000	.99990	1.00000	.99990
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	-.00002	.00000	.00000	-.00000	.00000

(ED0082) ( 29 SEP 73 )

NR-701 ORB B16C507J36124874CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

REFERENCE DATA

SPEF = 4.4119 SQ. FT. XARP = 43.9974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .5405

RUN NO. 382/ 0 RVAL = .00 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.000	-3.500	.00000	.99990	1.00000	1.00000	1.00000	.99990	.99990	1.00000	.99990	.99990
.000	.000	.00000	.99990	1.00000	1.00000	1.00000	.99990	.99990	.99990	1.00000	.99990
.000	5.000	.00000	.99990	1.00000	.99990	1.00000	.99990	.99990	1.00000	1.00000	.99990
.000	9.900	.00000	.99990	1.00000	.99990	.99990	.99990	.99990	.99990	1.00000	.99990
.000	14.900	.00000	.99990	1.00000	1.00000	1.00000	.99990	.99990	1.00000	.99990	.99990
.000	17.900	.00000	.99990	1.00000	.99990	.99990	.99990	.99990	1.00000	1.00000	1.00000
GRADIENT	.00000	.00000	.00000	.00000	-.00001	.00000	.00000	.00000	.00000	.00001	.00004



REFERENCE DATA

WARP = 4.4119 90 FT. WARP = 43.9974 INCHES

UREP = 19.2999 INCHES WARP = .0000 INCHES

UREP = 37.9349 INCHES ZARP = 16.2000 INCHES

SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 154.000

DE = .000 DA = .000

XL = .000 LIP = 4.000

NET = .000 RD = 3.000

RUN NO. 383/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	0	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.116	-3.500	20.19000	.99970	.99970	.99940	.99970	.99770	.99800	.99910	.99940	.99940
.116	.100	20.31000	.99960	.99940	.99830	.99780	.99750	.99750	.99820	.99970	.99930
.117	5.500	20.37100	.99910	.99870	.99820	.99810	.99850	.99540	.99750	.99930	.99940
.117	10.500	20.42200	.99940	.99930	.99920	.99920	.99920	.99580	.99830	.99960	.99950
.117	15.800	20.68900	.99950	.99950	.99950	.99950	.99940	.99770	.99920	.99950	.99940
.117	18.800	20.64700	.99940	.99940	.99940	.99940	.99940	.99800	.99920	.99940	.99930
GRADIENT	.03333	.03333	-.00003	-.00008	-.00031	-.00033	-.00006	-.00019	-.00026	-.00011	-.00003

REFERENCE DATA

WARP = 4.4119 90 FT. WARP = 43.9974 INCHES

UREP = 19.2999 INCHES WARP = .0000 INCHES

UREP = 37.9349 INCHES ZARP = 16.2000 INCHES

SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 154.000

DE = .000 DA = .000

XL = .000 LIP = 4.000

NET = .000 RD = 3.000

RUN NO. 383/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	0	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.116	-3.500	20.19000	.99970	.99970	.99970	.99970	.99970	.99960	.99970	.99960	.99970
.116	.100	20.31000	.99970	.99970	.99970	.99960	.99970	.99960	.99970	.99960	.99960
.117	5.500	20.37100	.99950	.99960	.99960	.99960	.99960	.99960	.99950	.99960	.99960
.117	10.500	20.42200	.99960	.99960	.99960	.99960	.99960	.99960	.99960	.99960	.99970
.117	15.800	20.68900	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99950
.117	18.800	20.68300	.99940	.99940	.99940	.99940	.99940	.99950	.99940	.99950	.99950
GRADIENT	.03333	.03333	-.00000	-.00000	-.00000	.00003	-.00000	.00000	-.00000	.00000	.00003



DATE 05 DEC 73 TABULATED PROPLSION SOURCE DATA NAAL-701

(COND85) ( 29 SEP 73 )

NR-701 ORB 816C507J3612487+CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

REFERENCE DATA

REF = 4.4119 SQ.FT. XAPP = 43.9974 INCHES  
LREF = 19.2999 INCHES YAPP = .0000 INCHES  
BREF = 37.9349 INCHES ZAPP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 385/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAJH	ALPHA	Q	VIM	WM	QVM	QVM	VTC	WOC	MFRI	MFRO	WC
.116	-3.500	20.16000	.34900	.34900	.35000	.35000	.31800	.33.00	2.25530	2.35090	.14100
.116	.100	20.15400	.34900	.35000	.35100	.35100	.31900	.33900	2.29910	2.36040	.14100
.116	5.300	20.30100	.35000	.35100	.35200	.35200	.32000	.33900	2.26060	2.36470	.14100
.117	10.500	20.49800	.34900	.34800	.35000	.34900	.32000	.33600	2.24750	2.35710	.14200
.117	15.800	20.59500	.35100	.34900	.35200	.35100	.32100	.33800	2.24780	2.36530	.14200
.118	18.800	20.77200	.35000	.34800	.35100	.34900	.32000	.33900	2.23510	2.36360	.14300
GRADIENT		- .00250	.00000	.00208	.00028	.00028	.00208	.00000	.00106	.00097	-.00000

(COND85) ( 29 SEP 73 )

NR-701 ORB 816C507J3612487+CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

REFERENCE DATA

REF = 4.4119 SQ.FT. XAPP = 43.9974 INCHES  
LREF = 19.2999 INCHES YAPP = .0000 INCHES  
BREF = 37.9349 INCHES ZAPP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 385/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAJH	ALPHA	CPS1	CPS0	CPS11	CPS12	CP90X	CP90Z	MIN	MON	PRT1	PRT0
.116	-3.500	-6.01900	-6.63200	-6.63700	-5.40100	-6.99700	-6.56700	.31200	.32800	.99900	.99970
.116	.100	-6.08900	-6.65800	-6.67900	-5.48800	-6.72700	-6.59600	.31200	.32800	.99970	.99970
.116	5.300	-6.09100	-6.69300	-6.68300	-5.50700	-6.74700	-6.63900	.31400	.33700	.99870	.99970
.117	10.500	-5.96900	-6.65900	-6.56600	-5.35200	-6.71400	-6.60300	.31300	.33100	.99910	.99960
.117	15.800	-5.94800	-6.73300	-6.57400	-5.31900	-6.90700	-6.64600	.31400	.33300	.99930	.99950
.118	18.800	-5.86400	-6.72800	-6.48600	-5.24300	-6.80700	-6.64900	.31400	.33400	.99930	.99950
GRADIENT		- .01778	-.00722	-.01167	-.02361	-.00639	-.00206	-.00000	-.00000	-.00000	-.00000

NR-701 ORB B16C507J3612487-0P

(EDM085) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 90.FT. WARP = 43.5974 INCHES  
 LRF = 19.2999 INCHES WARP = .0000 INCHES  
 BRP = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUI NO. 365/ 0 RUL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.116	-3.500	20.16300	.99970	.99970	.99940	.99970	.99970	.99830	.99910	.99930	.99930
.116	.100	20.15400	.99960	.99940	.99840	.99970	.99970	.99830	.99830	.99890	.99920
.116	5.300	20.30100	.99910	.99870	.99820	.99970	.99970	.99830	.99770	.99940	.99950
.117	10.500	20.49600	.99930	.99920	.99910	.99970	.99970	.99830	.99830	.99960	.99940
.117	15.800	20.59500	.99930	.99930	.99940	.99970	.99970	.99830	.99920	.99950	.99940
.118	18.800	20.77200	.99950	.99940	.99940	.99970	.99970	.99840	.99920	.99940	.99930
GRADIENT	-1.0250	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000

## REFERENCE DATA

SRF = 4.4119 90.FT. WARP = 43.5974 INCHES  
 LRF = 19.2999 INCHES WARP = .0000 INCHES  
 BRP = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUI NO. 365/ 0 RUL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.116	-3.500	20.16300	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.116	.100	20.15400	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.116	5.300	20.30100	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.117	10.500	20.49600	.99960	.99960	.99960	.99960	.99960	.99970	.99960	.99970	.99960
.117	15.800	20.59500	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99950	.99950
.118	18.800	20.77200	.99940	.99940	.99940	.99940	.99940	.99950	.99940	.99950	.99940
GRADIENT	-1.0250	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000	-5.0000

NR-701 ORB B16C507J3612487-0P

(EDM085) ( 29 SEP 73 )



REFERENCE DATA  
SLOT = 4.4119 INCHES  
LIFT = 19.2999 INCHES  
BEEP = 37.9349 INCHES  
SCALE = .0403

PARAMETRIC DATA  
BETA = .000  
DE = .000  
X/L = .000  
W/T = .000

RUN NO. 3060 0 BVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAD	ALPHA	Q	WTH	WCH	QWTH	QWCH	WTC	WTC	WRI	WRO	WC
.116	-3.400	20.1600	.2600	.2600	.2600	.2600	.2490	.2490	1.7660	1.8510	.1410
.118	.100	20.2300	.2600	.2600	.2600	.2600	.2490	.2490	1.7630	1.8530	.1410
.116	5.900	20.2999	.2600	.2600	.2600	.2600	.2490	.2490	1.7580	1.8490	.1410
.117	10.900	20.4500	.2600	.2600	.2600	.2600	.2510	.2510	1.7670	1.8580	.1420
.117	15.900	20.6000	.2600	.2600	.2600	.2600	.2500	.2500	1.7490	1.8380	.1420
.118	18.900	20.7700	.2600	.2600	.2600	.2600	.2500	.2500	1.7490	1.8480	.1430
GRADIENT							.0000	.0000	-1.0000	.0000	-1.0000

REFERENCE DATA  
SLOT = 4.4119 INCHES  
LIFT = 19.2999 INCHES  
BEEP = 37.9349 INCHES  
SCALE = .0403

PARAMETRIC DATA  
BETA = .000  
DE = .000  
X/L = .000  
W/T = .000

RUN NO. 3060 0 BVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAD	ALPHA	Q	WTH	WCH	QWTH	QWCH	WTC	WTC	WRI	WRO	WC
.116	-3.400	20.1600	.2600	.2600	.2600	.2600	.2490	.2490	1.7660	1.8510	.1410
.118	.100	20.2300	.2600	.2600	.2600	.2600	.2490	.2490	1.7630	1.8530	.1410
.116	5.900	20.2999	.2600	.2600	.2600	.2600	.2490	.2490	1.7580	1.8490	.1410
.117	10.900	20.4500	.2600	.2600	.2600	.2600	.2510	.2510	1.7670	1.8580	.1420
.117	15.900	20.6000	.2600	.2600	.2600	.2600	.2500	.2500	1.7490	1.8380	.1420
.118	18.900	20.7700	.2600	.2600	.2600	.2600	.2500	.2500	1.7490	1.8480	.1430
GRADIENT							.0000	.0000	-1.0000	.0000	-1.0000

NA-701 ORB B16C907J3512A874GP

(EDK086) ( 29 SEP 75 )

## REFERENCE DATA

BRP = 4.4119 80.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRP = 37.9349 INCHES ZGRP = 16.2770 INCHES  
 SCALE = .0403

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 386/ 0 EN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.116	-3.420	20.16400	.99970	.99960	.99930	.99920	.99800	.99840	.99900	.99930	.99920
.116	.100	20.23700	.99950	.99930	.99840	.99790	.99750	.99870	.99820	.99880	.99900
.116	5.300	20.28900	.99890	.99860	.99820	.99820	.99840	.99730	.99770	.99920	.99940
.117	10.900	20.40400	.99940	.99930	.99920	.99920	.99920	.99770	.99860	.99960	.99950
.117	15.700	20.65700	.99930	.99930	.99940	.99940	.99940	.99860	.99920	.99930	.99940
.118	18.800	20.77100	.99940	.99940	.99940	.99940	.99930	.99870	.99920	.99940	.99930
GRADIENT	.02046	.00776	-.00776	-.00776	-.00776	-.00731	-.00714	-.00711	-.00723	-.00714	-.00706

## REFERENCE DATA

BRP = 4.4119 80.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRP = 37.9349 INCHES ZGRP = 16.2770 INCHES  
 SCALE = .0403

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 386/ 0 EN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.116	-3.420	20.16400	.99970	.99970	.99970	.99970	.99970	.99960	.99970	.99970	.99970
.116	.100	20.23700	.99970	.99970	.99960	.99970	.99960	.99970	.99970	.99970	.99970
.116	5.300	20.28900	.99960	.99970	.99960	.99970	.99970	.99970	.99960	.99970	.99970
.117	10.900	20.40400	.99960	.99970	.99960	.99970	.99960	.99970	.99960	.99970	.99970
.117	15.700	20.68000	.99950	.99970	.99950	.99970	.99950	.99960	.99950	.99970	.99970
.118	18.800	20.77100	.99940	.99940	.99940	.99940	.99940	.99950	.99940	.99940	.99940
GRADIENT	.02046	.00770	.00770	.00770	.00770	.00730	.00703	.00703	.00720	.00703	.00700

NA-701 ORB B16C907J3512A874GP

(EDK086) ( 29 SEP 75 )

NR-701 ORB 816C307J3612-87+CP

REFERENCE DATA

BRD7 = 4.4119 50.00 FT. 1000P = 43.9974 INCHES  
 LRD7 = 19.2999 INCHES 1000P = .0000 INCHES  
 BRD7 = 37.9349 INCHES 2000P = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 MBT = .000 RD = 3.000

RUN NO. 3677 0 RVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	Q	W/M	W/M	Q/M	Q/M	W/C	W/C	W/C	MBT	MBT	VC
.116	-3.900	20.03700	.17900	.17900	.17400	.17400	.17100	.17000	.17000	1.21490	1.24400	1.4000
.116	.100	20.25400	.17100	.17400	.17200	.17500	.16900	.17700	.17700	1.19540	1.25610	1.4100
.116	5.900	20.25600	.17100	.17400	.17200	.17400	.16900	.17700	.17700	1.19490	1.24270	1.4100
.117	10.900	20.90400	.17200	.17900	.17900	.17900	.17200	.17700	.17700	1.19440	1.24290	1.4200
.117	15.700	20.65600	.17900	.17900	.17800	.18100	.17200	.16900	.16900	1.20850	1.09240	1.4300
.118	18.800	20.74200	.17900	.18200	.17800	.18600	.17300	.15100	.15100	1.20810	1.05660	1.4300
GRADIENT	.06083		-.00056	-.00028	-.00056	-.00028	-.00056	-.00028	-.00028	-.00052	-.00025	.00028

NR-701 ORB 816C307J3612-87+CP

REFERENCE DATA

BRD7 = 4.4119 50.00 FT. 1000P = 43.9974 INCHES  
 LRD7 = 19.2999 INCHES 1000P = .0000 INCHES  
 BRD7 = 37.9349 INCHES 2000P = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 MBT = .000 RD = 3.000

RUN NO. 3677 0 RVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	QPS1	QPS0	QPS11	QPS12	QPS04	QPS02	MIN	MBT	MBT	VC
.116	-3.900	-.98000	-.1.06000	-.1.10600	-.85300	-.1.10500	-.1.07100	.16000	.16000	.16000	.99980
.116	.100	-.99800	-.1.06900	-.1.12200	-.87400	-.1.10100	-.1.03700	.15900	.15900	.15900	.99980
.116	5.900	-.98900	-.1.06400	-.1.11200	-.86600	-.1.10600	-.94100	.15800	.15800	.15800	.99980
.117	10.900	-.93700	-.1.06700	-.1.05400	-.79700	-.1.13400	-.94700	.15900	.15900	.15900	.99980
.117	15.700	-.94900	-.2.41600	-.1.06900	-.80100	-.2.63100	-.2.20100	.16200	.16200	.16200	.98200
.118	18.800	-.94200	-.2.90400	-.1.09700	-.79400	-.3.19900	-.2.61900	.16200	.16200	.16200	.97800
GRADIENT	-.06083	.00528	-.00056	-.00044	-.00056	.00111	.00044	-.00028	-.00028	-.00028	-.00028

NR-751 098 B16C507J3612487+CP

(ED0587) ( 29 SEP 75 )

## REFERENCE DATA

SDP = 4.4119 80.FT. MRP = 43.9974 INCHES  
 LRP = 19.2099 INCHES MRP = 10.000 INCHES  
 SDP = 37.9349 INCHES MRP = 16.200 INCHES  
 SCALE = 1.000

## PARAMETRIC DATA

MTA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 K/L = .000 L/P = 4.000  
 NBT = .000 RO = 3.000

RUN NO. 3671 0 RML = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAO	ALPHA	Q	MT11	MT12	MT13	MT14	MT15	MT16	MT17	MT18	MT19
.116	-3.970	20.03300	.99970	.99970	.99940	.99920	.99880	.99870	.99920	.99940	.99930
.116	.100	20.25480	.99930	.99910	.99830	.99790	.99750	.99740	.99820	.99860	.99880
.116	5.300	20.25480	.99980	.99940	.99820	.99800	.99840	.99870	.99770	.99810	.99830
.117	10.970	20.25480	.99980	.99910	.99910	.99910	.99910	.99870	.99860	.99940	.99930
.117	15.700	20.25480	.99980	.99910	.99910	.99910	.99940	.99870	.99830	.99910	.99940
.118	16.800	20.25480	.99950	.99850	.99940	.99940	.99940	.99870	.99830	.99910	.99940
GRADIENT	.00003	.00003	-.00011	-.00017	-.00031	-.00036	-.00031	-.00019	-.00028	-.00022	-.00014

NR-751 098 B16C507J3612487+CP

(ED0587) ( 29 SEP 75 )

## REFERENCE DATA

SDP = 4.4119 80.FT. MRP = 43.9974 INCHES  
 LRP = 19.2099 INCHES MRP = 10.000 INCHES  
 SDP = 37.9349 INCHES MRP = 16.200 INCHES  
 SCALE = 1.000

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 K/L = .000 L/P = 4.000  
 NBT = .000 RO = 3.000

RUN NO. 3671 0 RML = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAO	ALPHA	Q	MT01	MT02	MT03	MT04	MT05	MT06	MT07	MT08	MT09
.116	-3.970	20.03300	.99990	.99990	.99970	.99980	.99970	.99980	.99980	.99980	.99980
.116	.100	20.25480	.99940	.99940	.99980	.99970	.99980	.99970	.99980	.99970	.99970
.116	5.300	20.25480	.99980	.99980	.99980	.99970	.99980	.99970	.99980	.99970	.99970
.117	10.970	20.25480	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.117	15.700	20.25480	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.118	16.800	20.25480	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
GRADIENT	.00003	.00003	-.00014	-.00014	-.00013	-.00013	-.00013	-.00013	-.00014	-.00013	-.00013

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TABULATED POPULATION SOURCE DATA NAL-751

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NP-751 ORG B16C50733612-87-CP

(COND088) (29 SEP 73)

## REFERENCE DATA

WCH = 4.4119 90 FT. MRP = 43.9974 INCHES  
 LRP = 19.2999 INCHES MRP = .0000 INCHES  
 BPY = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 3087 0 RUL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	0	MIN	WCH	QUM	QUM	WIC	WIC	MR1	MR2	WC
.116	.100	20.33100	.17000	.17000	.17100	.17100	.16800	.17400	1.19090	1.23190	.14100
.116	.100	20.19900	.41900	.41900	.42100	.42100	.36800	.38200	2.59180	2.70880	.14100
.116	.100	20.10900	.41800	.41900	.42100	.42100	.36800	.38200	2.59070	2.71380	.14100
GRADIENT	1.01000	-2.47900	-2.49000	-2.48000	-2.57000	-2.57000	-1.98000	-2.10000	-14.04750	-14.78400	-9.00000

NP-751 ORG B16C50733612-87-CP

(COND088) (29 SEP 73)

## REFERENCE DATA

WCH = 4.4119 90 FT. MRP = 43.9974 INCHES  
 LRP = 19.2999 INCHES MRP = .0000 INCHES  
 BPY = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 3087 0 RUL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	0	MIN	WCH	QUM	QUM	WIC	WIC	MR1	MR2	WC
.116	.100	20.33100	.17000	.17000	.17100	.17100	.16800	.17400	1.19090	1.23190	.14100
.116	.100	20.19900	.41900	.41900	.42100	.42100	.36800	.38200	2.59180	2.70880	.14100
.116	.100	20.10900	.41800	.41900	.42100	.42100	.36800	.38200	2.59070	2.71380	.14100
GRADIENT	1.01000	-2.47900	-2.49000	-2.48000	-2.57000	-2.57000	-1.98000	-2.10000	-14.04750	-14.78400	-9.00000

NP-751 ORG B16C50733612-87-CP

(COND088) (29 SEP 73)

## REFERENCE DATA

WCH = 4.4119 90 FT. MRP = 43.9974 INCHES  
 LRP = 19.2999 INCHES MRP = .0000 INCHES  
 BPY = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 3087 0 RUL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	0	MIN	WCH	QUM	QUM	WIC	WIC	MR1	MR2	WC
.116	.100	20.33100	.17000	.17000	.17100	.17100	.16800	.17400	1.19090	1.23190	.14100
.116	.100	20.19900	.41900	.41900	.42100	.42100	.36800	.38200	2.59180	2.70880	.14100
.116	.100	20.10900	.41800	.41900	.42100	.42100	.36800	.38200	2.59070	2.71380	.14100
GRADIENT	1.01000	-2.47900	-2.49000	-2.48000	-2.57000	-2.57000	-1.98000	-2.10000	-14.04750	-14.78400	-9.00000

NR-701 ORB B16C507J36.1A87+GP

(FON388) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = -10.000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 348/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.116	.116	20.23100	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.116	.000	20.19500	.99960	.99970	.99960	.99970	.99970	.99980	.99970	.99970	.99970
.116	.000	20.10500	.99970	.99980	.99970	.99980	.99970	.99980	.99970	.99980	.99980
GRADIENT	1.81000	.00050	.00050	.00050	.00050	.00050	.00000	-.00000	.00000	.00050	.00050

NR-701 ORB B16C507J36.1A87+GP

(CON389) ( 29 SEP 72 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 389/ 0 RNVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MPRI	MPRO	WC
.164	-3.500	40.22200	.42300	.42700	.42200	.42600	.37100	.38800	1.86340	1.95190	.19900
.164	.200	40.49900	.42000	.42400	.41900	.42200	.37000	.38800	1.85190	1.94220	.19900
.165	5.300	40.75300	.42200	.42400	.42100	.42300	.37100	.38900	1.85340	1.94360	.20000
.165	10.500	40.94700	.42300	.42400	.42200	.42200	.37100	.39000	1.85110	1.94320	.20000
.165	15.800	41.15100	.42200	.42100	.42100	.42000	.37100	.39200	1.84640	1.94980	.20100
.166	18.900	41.39200	.42500	.39800	.42400	.41100	.37200	.37800	1.84580	1.87540	.20100
GRADIENT	.07486	-.00081	-.00081	-.00081	-.00081	-.00108	-.00027	-.00000	-.00031	-.00262	-.00000





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TABULATED PROPULSION SOURCE DATA NAAL-7C1  
(DDNS89) ( 29 SEP 73 )

NR-701 CRB B16C507J3G12W87+GP

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 389/ 0 RNVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.164	-3.500	-3.89200	-4.34200	-4.31900	-3.46500	-4.38800	-4.29600	.36900	.39000	.99850	.99990
.164	.200	-3.89500	-4.30200	-4.30100	-3.49000	-4.34500	-4.23800	.36800	.38900	.99740	.99960
.165	5.300	-3.90400	-4.32100	-4.30700	-3.50100	-4.35700	-4.28400	.37000	.39100	.99740	.99950
.165	10.500	-3.82700	-4.32300	-4.25500	-3.39900	-4.37700	-4.29200	.37000	.39200	.99860	.99950
.166	15.800	-3.78000	-4.37800	-4.21000	-3.34900	-4.46700	-4.29200	.37000	.39500	.99890	.99930
.166	18.900	-3.78000	-5.97500	-4.21500	-3.34400	-6.14900	-5.80000	.37100	.39400	.99890	.96440
GRADIENT		-.00081	.01081	.00486	-.00676	.01162	.01027	-.00027	-.00027	-.00030	-.00008

(EDNS89) ( 29 SEP 73 )  
NR-701 CRB B16C507J3G12W87+GP

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 389/ 0 RNVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.500	40.22200	.99980	.99980	.99910	.99850	.99660	.99750	.99870	.99900	.99890
.164	.200	40.49900	.99930	.99980	.99690	.99600	.99510	.99630	.99670	.99780	.99830
.165	5.300	40.75300	.99780	.99720	.99650	.99650	.99710	.99450	.99540	.99880	.99900
.165	10.500	40.94700	.99890	.99870	.99860	.99860	.99880	.99560	.99730	.99940	.99920
.166	15.800	41.15100	.99920	.99920	.99910	.99910	.99910	.99720	.99860	.99920	.99900
.166	18.900	41.39200	.99910	.99910	.99910	.99910	.99910	.99760	.99870	.99910	.99890
GRADIENT		.07486	-.00014	-.00027	-.00059	-.00068	-.00041	-.00032	-.00054	-.00032	-.00016

NR-701 ORB 816C507J3G12W87+GP

(FDNS89) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 389/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.164	-3.500	40.22200	.99980	.99990	.99980	.99990	.99980	.99990	.99990	1.00000	1.00000
.164	.200	40.49300	.99960	.99960	.99980	.99960	.99960	.99970	.99960	.99970	.99970
.165	5.300	40.75300	.99950	.99950	.99940	.99950	.99940	.99960	.99950	.99960	.99960
.165	10.500	40.94700	.99940	.99950	.99940	.99950	.99940	.99960	.99950	.99960	.99960
.165	15.800	41.15100	.99920	.99930	.99920	.99930	.99920	.99940	.99920	.99940	.99940
.166	18.900	41.39200	.94370	.96820	.99610	.99890	.99910	.99910	.99910	.94710	.91950
GRADIENT	.07486		-.00005	-.00008	-.00008	-.00008	-.00005	-.00008	-.00008	-.00008	-.00008

NR-701 ORB 816C507J3G12W87+GP

(CDNS90) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 390/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WTH	WOM	CMTH	CMOM	WTC	WOC	MFRI	MFRO	WC
.164	-3.500	40.28400	.35500	.35800	.35500	.35700	.32500	.34100	1.63550	1.71270	.19900
.164	.200	40.43700	.35400	.35800	.35400	.35700	.32500	.34200	1.63050	1.71490	.19900
.165	5.300	40.82100	.35400	.35700	.35400	.35600	.32600	.34300	1.62740	1.71190	.20000
.165	10.600	40.91500	.35800	.35800	.35700	.35700	.32700	.34500	1.63370	1.72070	.20000
.166	15.800	41.23700	.35600	.35500	.35600	.35400	.32700	.34700	1.62760	1.72740	.20100
.166	18.900	41.42400	.35900	.32800	.35800	.34200	.32900	.32100	1.63110	1.59350	.20100
GRADIENT	.04135		-.00027	.00000	-.00027	.00000	.00000	.00027	-.00035	.00059	-.00000



## DATE 05 DEC 73 TABULATED PROPLUSION SOURCE DATA NAAL-701

(DDN390) ( 29 SEP 73 )

NR-701 ORB B16C507J3612W87+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 390/ 0 RNVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CP51	CP50	CP511	CP512	CP501	CP502	MON	PRT1	PRT0
.164	-3.500	-2.69500	-2.99700	-3.00100	-2.39000	-3.02800	-2.96600	.33400	.99840	.99981
.164	.200	-2.73900	-3.02100	-3.03400	-2.44500	-3.04800	-2.99400	.33500	.99730	.99980
.165	5.300	-2.71900	-3.01200	-3.01100	-2.42700	-3.03400	-2.99700	.33600	.99740	.99980
.165	10.600	-2.67700	-3.06100	-2.99200	-2.36300	-3.08900	-3.03200	.33900	.99870	.99950
.166	15.800	-2.63400	-3.11500	-2.95100	-2.31700	-3.16400	-3.06700	.34200	.99890	.99920
.166	18.900	-2.64500	-4.87000	-2.96200	-2.32900	-5.10200	-4.63900	.32900	.99900	.95630
GRADIENT		-.01189	-.00649	-.02892	-.01486	-.00541	-.00757	.00027	-.00030	-.00005

(EDN390) ( 29 SEP 73 )

NR-701 ORB B16C507J3612W87+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 390/ 0 RNVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.500	40.28400	.99970	.99970	.99900	.99830	.99660	.99760	.99870	.99880	.99870
.164	.200	40.43700	.99900	.99840	.99660	.99590	.99530	.99610	.99640	.99760	.99810
.165	5.300	40.82100	.99760	.99710	.99650	.99650	.99710	.99470	.99560	.99860	.99920
.165	10.600	40.91500	.99890	.99870	.99870	.99880	.99880	.99610	.99750	.99940	.99930
.166	15.800	41.23700	.99920	.99920	.99910	.99910	.99920	.99750	.99870	.99920	.99920
.166	18.900	41.42400	.99920	.99920	.99920	.99920	.99920	.99870	.99890	.99920	.99920
GRADIENT		.04135	-.00019	-.00035	-.00065	-.00065	-.00035	-.00041	-.00062	-.00030	-.00016

NR-701 ORB B16C507J3G12A87+CP

(F0N090) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2599 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 390/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PR
.164	-3.500	40.28400	.99980	.99980	.99980	.99980	.99980	1.00000	.99980	.99990	.99990
.164	.200	40.43700	.99960	.99960	.99960	.99960	.99960	.99970	.99960	.99970	.99970
.163	5.300	40.62100	.99950	.99950	.99950	.99950	.99950	.99970	.99950	.99960	.99960
.165	10.600	40.91500	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.166	15.800	41.23700	.99920	.99920	.99920	.99920	.99920	.99930	.99920	.99930	.99930
.166	18.900	41.42400	.92120	.94330	.99140	.99830	.99920	.99940	.99880	.93220	.91950
GRADIENT	.04135		-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005

NR-701 ORB B16C507J3G12A87+CP

(CON091) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2599 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 391/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WIM	WOM	QWM	QWH	WIC	WOC	WFI	WFO	WC
.164	-3.500	40.23300	.27300	.27600	.27300	.27500	.26100	.27300	1.31540	1.37640	.19800
.164	.200	40.50800	.27200	.27600	.27300	.27500	.26000	.27400	1.30390	1.37400	.19900
.164	5.300	40.49100	.27000	.27400	.27000	.27300	.26000	.27400	1.30160	1.37640	.19900
.166	10.500	41.10300	.27200	.27300	.27200	.27300	.26100	.27400	1.30170	1.36840	.20000
.166	15.800	41.37700	.27300	.27100	.27300	.27000	.26100	.27700	1.29700	1.37770	.20100
.166	18.900	41.54300	.27700	.24300	.27600	.25400	.26400	.23800	1.31050	1.18100	.20100
GRADIENT	.07459		-.00027	.00000	-.00000	-.00000	-.00027	.00027	-.00031	-.00065	.00027



REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 IN ES ZGRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 391/ 0 RVAL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.164	-3.500	40.23300	.99980	.99980	.99980	.99980	.99980	1.00000	.99980	.99990	.99990
.164	.200	40.50970	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99970	.99970
.164	5.300	40.49100	.99940	.99950	.99940	.99950	.99950	.99960	.99950	.99960	.99960
.166	10.500	41.10370	.99930	.99930	.99930	.99930	.99930	.99940	.99930	.99940	.99940
.166	15.800	41.37770	.99920	.99920	.99920	.99920	.99920	.99930	.99920	.99930	.99930
.166	18.900	41.54300	.91770	.91990	.97920	.99620	.99930	.99940	.95670	.92470	.91950
GRADIENT		.07459	-.00705	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 392/ 0 RVAL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WTM	WCH	QTM	QCM	WTC	WOC	MFR1	MFR0	WC
.164	-3.500	40.36900	.19300	.19600	.19300	.19800	.19300	.20100	.97320	1.01200	.19900
.164	.200	40.49600	.19100	.19700	.19100	.19700	.19000	.20100	.95590	1.00990	.19900
.165	5.300	40.73300	.19000	.19500	.19000	.19500	.19000	.20100	.95470	.99580	.19900
.166	10.500	41.13600	.19400	.19500	.19400	.19500	.19300	.20100	.96270	1.00310	.20000
.166	15.800	41.15370	.19800	.17200	.19800	.17700	.19500	.17000	.97330	.84980	.20000
.166	18.900	41.50700	.19900	.16700	.19900	.17300	.19600	.16700	.97410	.82990	.20100
GRADIENT		.03432	-.00054	.00027	-.00054	.00027	-.00081	.00000	-.00468	-.00057	-.00000

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

(DDN392) ( 29 SEP 73 )

NR-701 ORB B16C507J3G12W874CP

### REFERENCE DATA

SREF = 4.4119 SQ.FT.  
LREF = 19.2999 INCHES  
BREF = 37.9349 INCHES  
SCALE = .0005

168RP	=	43.5974	INCHES	BETA	=
174RP	=	.0000	INCHES	DE	=
204RP	=	16.2000	INCHES	X/L	=
				NBT	=
				GRABENT INTERVAL	= -5.00/ 5.00

## PARAMETRIC DATA

154,000	=	GAP	154,000
0,000	=	DA	0,000
4,000	=	LIP	4,000
3,000	=	RD	3,000

[illegible]

NR-71 ORR B16C507J3G12-87+GP

(ETW392) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT.  
LREF = 19.2999 INCHES  
BREF = 37.9349 INCHES  
SCALE = .0405

XMRP	=	43.5974 INCHES
YMRP	=	.0000 INCHES
ZMRP	=	16.2000 INCHES
BETA	=	
DE	=	
x/L	=	
NBT	=	
CONTRACT INTERVAL = -5.00 / 5.00		

### PARAMETRIC DATA

.000	GPP	=	154,000
.000	DA	=	.000
.000	LIP	=	4,000
.000	RD	=	3,000

MAC	ALPHA	Q	RTT11	RTT12	RTT13	RTT14	RTT15	RTT16	RTT17	RTT18	RTT19
.164	-3.500	40.36900	.99960	.99950	.99970	.99850	.99740	.99820	.99870	.99870	.99850
.164	.200	40.49800	.99850	.99790	.99650	.99590	.99540	.99620	.99630	.99710	.99750
.165	5.300	40.73300	.99680	.99670	.99650	.99660	.99690	.99510	.99570	.99830	.99870
.165	10.500	41.13800	.99880	.99880	.99870	.99870	.99880	.99690	.99790	.99940	.99930
.166	15.800	41.15500	.99940	.99930	.99930	.99930	.99920	.99860	.99910	.99940	.99920
.166	18.900	41.50700	.99910	.99910	.99970	.99970	.99970	.99850	.99880	.99910	.99880
			.99900	.99910	.99960	.99970	.99975	.99954	.99965	.99943	.99927

REFERENCE DATA

BREF = 4.4119 SQ.FT.

LRP = 19.2999 INCHES

BREF = 37.9349 INCHES

SCALE = .0405

XARP = 43.5974 INCHES

YARP = .0000 INCHES

ZARP = 16.2000 INCHES

BETA = .000

DE = .000

X/L = .000

NBT = .000

GPP = 154.000

DA = .000

LIP = 4.000

RD = 3.000

PARAMETRIC DATA

RUN NO. 392/ 0

RA/L = .17

GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.164	-3.500	40.36970	.99970	.99970	.99970	.99970	.99970	.99990	.99970	.99980	.99980
.164	.200	40.49670	.99980	.99980	.99980	.99970	.99980	.99980	.99980	.99970	.99970
.165	5.300	40.73370	.99940	.99940	.99940	.99950	.99940	.99960	.99940	.99950	.99960
.166	10.500	41.13870	.99950	.99950	.99950	.99950	.99950	.99970	.99950	.99960	.99960
.166	15.800	41.11500	.94880	.95180	.98380	.99660	.99940	.99940	.99670	.95390	.94980
.166	18.900	41.50700	.94050	.94130	.97120	.99780	.99970	.99870	.99170	.94310	.94080
GRADIENT	.03432		-.00003	-.00003	-.00003	.00000	-.00003	-.00003	-.00003	-.00003	-.00003

(CON393) ( 29 SEP 73 )

NR-701 OR8 816C507J3C12487+GP

REFERENCE DATA

BREF = 4.4119 SQ.FT.

LRP = 19.2999 INCHES

BREF = 37.9349 INCHES

SCALE = .0405

XARP = 43.5974 INCHES

YARP = .0000 INCHES

ZARP = 16.2000 INCHES

BETA = .000

DE = .000

X/L = .000

NBT = .000

GPP = 154.000

DA = .000

LIP = 4.000

RD = 3.000

PARAMETRIC DATA

RUN NO. 393/ 0

RA/L = .20

GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WTH	WOM	QWTH	QWOM	WTC	WOC	WTEI	WPRO	WC
.200	-3.500	60.31700	.21000	.21400	.20800	.21200	.21300	.21900	.88030	.90370	.24200
.201	.200	60.63200	.20700	.21500	.20800	.21300	.20800	.22000	.84950	.90450	.24300
.201	5.400	60.95300	.20700	.21500	.20800	.21300	.20700	.21800	.85220	.89530	.24300
.202	10.800	61.42800	.21000	.21200	.20900	.21100	.21100	.22100	.86430	.90430	.24400
.203	15.900	62.02000	.21600	.21400	.21400	.19000	.21400	.21900	.87210	.74620	.24500
.204	19.100	62.31700	.21300	.21400	.21200	.18000	.21200	.17800	.86040	.72450	.24600
GRADIENT	.08513		-.00081	.00027	-.00054	.00027	-.00189	.00027	-.00832	.00022	.00027





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TABULATED PROPLUSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3612487+GP

(DDN0393) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2007 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 393/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CP81	CP80	CP811	CP812	CP804	CP802	MIN	MON	PRT1	PRT0
.200	-3.500	-.04700	-.04600	-.06100	-.03300	-.03100	-.04000	.19900	.20500	.99810	.99990
.201	.200	-.07400	-.05000	-.11200	-.03700	-.06800	-.03500	.19300	.20600	.99510	.99980
.202	5.400	-.07200	-.03300	-.11400	-.03000	-.07500	.00800	.19400	.20400	.99600	.99970
.203	10.600	-.01200	-.06000	-.06200	.03800	-.10800	-.01400	.19800	.20700	.99830	.99960
.204	15.900	-.00900	-1.10200	-.07700	.05100	-1.21600	-.92800	.20700	.17700	.99890	.96100
	19.100	.01300	-1.27400	-.05000	.07600	-1.45700	-1.09100	.19800	.17300	.99880	.95480
GRADIENT		-.00750	-.00108	-.01378	-.00108	-1.01378	.00135	-.00162	.00027	-.00073	-.00003

NR-701 ORB B16C507J3612487+GP

(EDN0393) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2007 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 393/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.200	-3.500	60.31700	.99970	.99960	.99890	.99330	.99680	.99790	.99860	.99860	.99820
.201	.200	60.63200	.99790	.99710	.99520	.99430	.99340	.99500	.99500	.99590	.99830
.202	5.400	60.95300	.99590	.99530	.99510	.99110	.99560	.99310	.99390	.99760	.99830
.203	10.600	61.42600	.99840	.99830	.99830	.99630	.99850	.99580	.99710	.99930	.99910
.204	15.900	62.02700	.99910	.99910	.99900	.99900	.99890	.99810	.99870	.99910	.99880
	19.100	62.31700	.99900	.99900	.99890	.99890	.99890	.99820	.99870	.99890	.99850
GRADIENT		.06513	-.00049	-.00068	-.00100	-.00108	-.00092	-.00078	-.00097	-.00073	-.00051

NR-701 ORB B16C507J3612A87+CP

(F0N093) ( 29 SEP 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARR = 43.5974 INCHES  
 LREF = 19.293 INCHES YARR = .0000 INCHES  
 BREF = 37.9349 INCHES ZARR = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 393/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.200	-3.500	60.31700	.99980	.99990	.99980	.99990	.99980	1.00010	.99980	1.00000	1.00000
.201	.200	60.63200	.99980	.99980	.99980	.99980	.99980	1.00000	.99980	.99990	1.00000
.201	5.400	60.95300	.99980	.99970	.99980	.99970	.99980	.99990	.99970	.99980	.99980
.202	10.600	61.42600	.99950	.99950	.99950	.99950	.99980	.99980	.99950	.99970	.99970
.203	15.900	62.02700	.93350	.93560	.97220	.99240	.99910	.99880	.99260	.93880	.93530
.204	19.100	62.31700	.92710	.92700	.95610	.98310	.99810	.99810	.98520	.92680	.92630
GRADIENT	.08313	.07720	.07720	.07720	.07720	.07720	.07720	.07720	.07720	.07720	.07720

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARR = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARR = .0000 INCHES  
 BREF = 37.9349 INCHES ZARR = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 394/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

MACH	ALPHA	Q	WM	WOM	CM	COM	WIC	WOC	MFR1	MFR2	UC
.201	.200	60.60800	.28300	.29100	.28200	.28900	.27200	.28800	1.12040	1.18500	.24200
.202	5.400	61.26800	.28200	.28800	.28100	.28600	.27200	.28800	1.11450	1.18290	.24400
.202	10.600	61.49300	.28500	.28800	.28400	.28600	.27400	.28900	1.12450	1.18420	.24400
.203	15.900	62.04800	.28900	.29700	.28700	.28900	.27700	.24600	1.12910	1.07370	.24900
.203	19.100	62.21900	.29000	.24900	.28900	.26100	.27800	.26400	1.13080	1.07750	.24900
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

NR-701 ORB B16C507J3612A87+CP

(C0N094) ( 29 SEP 75 )

( 29 SEP 73 )

NR-701 088 B16C507J3612-07-CP

### PARAMETRIC DATA

BETA	=	.000	GMP	=	154,000
DE	=	.000	DA	=	.000
W/L	=	.000	LTP	=	4,000
REV	=	.000	RO	=	3,000

## REFERENCE DATA

BR37 =	4,419 SQ. FT.	1000 =	43,9974 INCHES
LR37 =	19,2999 INCHES	1000 =	.0000 INCHES
BR37 =	37,9349 INCHES	2000 =	16,2000 INCHES
BR37 =	0405		

Variable	Mean	SD	95% CI	Gradient Interval
Age	50.0	10.0	40.0 - 60.0	-5.00 / 5.00
Gender	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Marital Status	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Education	12.0	2.0	10.0 - 14.0	-5.00 / 5.00
Income	30.0	10.0	20.0 - 40.0	-5.00 / 5.00
Health Status	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Smoking Status	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Alcohol Consumption	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Exercise Frequency	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Stress Level	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Sleep Quality	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Dietary Habits	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Family History	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Genetic Predisposition	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Environmental Factors	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Psychological Resilience	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Social Support	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Work-Life Balance	0.5	0.5	0.0 - 1.0	-5.00 / 5.00
Overall Health Score	0.5	0.5	0.0 - 1.0	-5.00 / 5.00

WAGON	ALPHA	CP81	CP80	CP811	CP812	CP804	CP802	MIN	MON	PRT1	PRT0
.201	.200	-1.78200	-8.59000	-8.69000	-6.72000	-8.68000	-8.51000	.28000	.278000	.99610	.99980
.202	5.400	-1.75900	-8.42000	-8.66000	-6.50000	-8.53000	-8.31000	.25900	.276000	.99610	.99970
.203	10.600	-1.71900	-8.00000	-8.37000	-5.94000	-8.69000	-8.21000	.26500	.277000	.99810	.5.940
.204	15.900	-1.70900	-2.13600	-8.39000	-5.77000	-2.37900	-1.89400	.26400	.245000	.99870	.94570
.205	19.100	-1.70600	-2.51500	-8.41000	-5.71000	-2.80700	-2.21900	.26500	.267000	.99890	.94540
								.00700	.007000		.00700

(ETN304) (25 SEP 73)

NR-701 CR8 B16C507J3G12W87+CP

## PARAMETRIC DATA

BETA	=	.000	QPP	=	154.000
DE	=	.000	DA	=	.000
K/L	=	.000	LIP	=	4.000
BO	=	.000	BO	=	3.000

## REFERENCE DATA

SRDF =	4.4119 SQ. FT.	X4R2 =	43.5974 INCHES
URDF =	19.2994 INCHES	Y4R2 =	.0000 INCHES
BRDF =	37.9349 INCHES	Z4R2 =	16.2000 INCHES
SCALE =	1/405		

	90% C	BNA =	20	GRADIENT INTERVAL =	-5.00/	5.00
DATA						

MACH	ALPHA	Q	RUN NO.	394/0	RM/L =	20	GRADIENT	INTERVAL =	-5.00/	5.00	PR15	PR16	PR17	PR18	PR19
201	2.30	60.67800									.99480	.99500	.99630	.99690	
202	5.400	61.26800									.99570	.99570	.99780	.99860	
202	10.800	61.49300									.99570	.99670	.99920	.99970	
203	15.900	62.04800									.99750	.99840	.99940	.99970	
203	19.100	62.21900									.99870	.99910	.99910	.99870	

NR-701 OKS B18C507J3612407+CP

(FD-394) (29 SEP 73)

REFERENCE DATA

SREF = 4.4119 SQ.FT. WARP = 43.5974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
WREF = 37.9345 INCHES WARP = :5.2000 INCHES  
SCALE = .0405

### PARAMETRIC DATA

BETA	=	.000	QPP	=	154,000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4,000
NBT	=	.000	RD	=	3,000

RUN NO. 394/0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

## REFERENCE DATA

8877 = 4,411.9 80, FT. 3668' = 43,5974 INOES  
 8878 = 19,2998 INOES 7669' = .0070 INOES  
 8879 = 37,9349 INOES 2669' = 16,2070 INOES  
 SCALE = .0005

### PARAMETRIC DATA

BETA	=	.000	GMP	=	154.0700
DE	=	.070	DA	=	.000
K/L	=	.070	LTP	=	4.0000
NBT	=	.000	RD	=	3.0000

FROM NO. 395/ 0 RNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAO	ALPHA	$\beta$	W/M	WOM	C/M	C/W	M/C	WOC	MPI	MPO	WC
.200	-3.900	60.35600	.36300	.36900	.36100	.36500	.33300	.39000	1.37850	1.44610	.24200
.201	.200	60.27600	.36200	.36800	.36100	.36600	.33100	.35100	1.36780	1.44640	.24200
.202	5.400	61.27100	.36300	.36900	.36200	.36600	.33200	.35200	1.36780	1.44570	.24200
.202	10.700	61.99600	.36400	.36900	.36200	.36400	.33400	.35400	1.36820	1.44920	.24400
.203	15.900	61.97700	.36500	.36300	.36400	.36100	.33400	.36000	1.36590	1.47010	.24500
.203	15.100	62.25600	.36200	.36300	.36100	.33900	.33300	.34000	1.35840	1.39780	.24500
GRADIENT		.04514	-.00027	-.00000	-.07000	.00727	-.00054	.00027	-.00286	-.00038	.00000

TABULATED PROFLUION SOURCE DATA NAAL-701  
NR-701 ORB B16C507J3G12L874GP

PARAMETRIC DATA  
BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

REFERENCE DATA  
SREF = 4.4119 96.17. MGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
SREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = 1.005

RUN NO. 395/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	CPSE	CPSE	CPSE	CPSE	MIN	MON	PRT1	PRT0
.200	-3.500	-1.61100	-1.62800	-1.81400	-1.40900	.32500	.34300	.99830	1.00000
.201	.200	-1.63800	-1.64100	-1.85900	-1.46300	.32400	.34400	.99800	.99970
.202	5.400	-1.63900	-1.64900	-1.84700	-1.46000	.32600	.34600	.99610	.99980
.203	10.700	-1.57800	-1.86400	-1.37700	-1.88200	.32600	.34800	.99820	.99950
.203	15.900	-1.54700	-1.97200	-1.76700	-1.33300	.32600	.35500	.99870	.99910
.203	19.100	-1.51500	-3.70900	-1.72900	-3.98100	.32500	.35800	.99860	.94570
GRADIENT		-0.01270	-0.00351	-0.01054	-0.01459	-0.00027	.00027	-0.00062	-0.00008

PARAMETRIC DATA  
BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

REFERENCE DATA  
SREF = 4.4119 96.17. MGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
SREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = 1.005

RUN NO. 395/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	CPSE	CPSE	CPSE	CPSE	MIN	MON	PRT1	PRT0
.200	-3.500	-1.61100	-1.62800	-1.81400	-1.40900	.32500	.34300	.99830	1.00000
.201	.200	-1.63800	-1.64100	-1.85900	-1.46300	.32400	.34400	.99800	.99970
.202	5.400	-1.63900	-1.64900	-1.84700	-1.46000	.32600	.34600	.99610	.99980
.203	10.700	-1.57800	-1.86400	-1.37700	-1.88200	.32600	.34800	.99820	.99950
.203	15.900	-1.54700	-1.97200	-1.76700	-1.33300	.32600	.35500	.99870	.99910
.203	19.100	-1.51500	-3.70900	-1.72900	-3.98100	.32500	.35800	.99860	.99910
GRADIENT		-0.01270	-0.00351	-0.01054	-0.01459	-0.00027	.00027	-0.00062	-0.00008

NR-701 ORB B16C5D7J3G12W87+GP

(CDN395) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

GETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 395/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
MAOH	-3.500	60.35600	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.200	.200	60.67100	.99960	.99960	.99960	.99970	.99960	.99990	.99960	.99980	.99980
.201	.201	61.22600	.99950	.99950	.99950	.99950	.99950	.99950	.99950	.99970	.99970
.202	.202	61.59800	.99940	.99950	.99940	.99950	.99940	.99970	.99950	.99960	.99960
.203	.203	61.97700	.99900	.99910	.99900	.99910	.99930	.99930	.99920	.99920	.99920
.204	.204	62.23800	.90890	.89320	.97740	.99650	.99910	.99940	.99700	.91060	.91060
GRADIENT	.08514		-.00008	-.00008	-.00008	-.00008	-.00008	-.00008	-.00008	-.00008	-.00008

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 396/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	Q	W/M	WOM	Q/M	W/C	W/C	W/C	W/C	W/C	W/C
MAOH	-3.500	60.50000	.43100	.43500	.42900	.43200	.37700	.39500	1.55850	1.63230	.24200
.201	.201	60.74500	.43100	.43600	.43000	.43400	.37600	.39600	1.55210	1.63340	.24200
.202	.202	61.20600	.42900	.43400	.42800	.43200	.37700	.39700	1.54860	1.63020	.24300
.203	.203	61.37900	.43200	.43400	.43100	.43200	.37800	.39900	1.55200	1.63650	.24300
.204	.204	62.31200	.43400	.40800	.43200	.42100	.37900	.38000	1.54680	1.54880	.24500
.205	.205	62.65800	.43600	.39500	.43400	.41500	.38000	.39600	1.54460	1.61810	.24600
GRADIENT	.06822		.00000	.00027	.00027	.00054	-.00027	.00027	-.000173	.00030	.00000

NR-701 ORB B16C5D7J3G12W87+GP

(CDN396) ( 29 SEP 73 )



DATE 05 DEC 73 TABULATED PROPELLION SOURCE DATA NAAL-701

(DDG96) ( 29 SEP 73 )

NR-701 ORB B16C507J3C12A674GP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 396/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MON	PRT1	PRT0
.201	-3.500	-2.41900	-2.71400	-2.70400	-2.13400	-2.74300	-2.68400	.39700	.99800	.99990
.201	.200	-2.45900	-2.71900	-2.73200	-2.18500	-2.74500	-2.69300	.39800	.99630	1.00000
.202	5.400	-2.44800	-2.72300	-2.71800	-2.17800	-2.74400	-2.70100	.39900	.99620	.99950
.202	10.600	-2.39600	-2.76100	-2.67800	-2.09500	-2.79200	-2.73000	.40200	.99820	.99940
.204	15.900	-2.33800	-3.87500	-2.63400	-2.04200	-3.98500	-3.76100	.39800	.99800	.96010
.204	19.100	-2.32800	-4.72300	-2.62500	-2.03000	-4.92900	-4.51700	.42900	.99890	.94800
GRADIENT		-.01081	-.00135	-.00757	-.01378	-.00054	-.00243	.00027	-.00046	.00003

(EDG96) ( 29 SEP 73 )

NR-701 ORB B16C507J3C12A674GP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 396/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.500	60.50000	.99980	.99970	.99880	.99790	.99550	.99680	.99820	.99860	.99830
.201	.200	60.74900	.99900	.99810	.99530	.99420	.99320	.99470	.99520	.99670	.99760
.202	5.400	61.20600	.99640	.99570	.99490	.99490	.99570	.99210	.99330	.99810	.99870
.202	10.600	61.37900	.99840	.99830	.99820	.99820	.99840	.99440	.99650	.99930	.99910
.204	15.900	62.31200	.99920	.99920	.99910	.99970	.99900	.99720	.99850	.99920	.99880
.204	19.100	62.65800	.99920	.99920	.99910	.99910	.99910	.99750	.99870	.99910	.99860
GRADIENT		.06622	-.00022	-.00043	-.00095	-.00100	-.00062	-.00057	-.00086	-.00051	-.00019

(FD-396) (29 SEP 73)

NR-701 ORR B16C507J3G12W87+CP

## REFERENCE DATA

YREF =	4.4119 SQ. FT.	YARP =	43,5974 INCHES
XREF =	19.2999 INCHES	YARP =	5000 INCHES
ZREF =	37.9349 INCHES	ZARP =	16,2000 INCHES
SCALE =	.0405		

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154,000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4,000
NBT	=	.000	RD	=	3,000

RMN NO 198/0 GRNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.500	60.50000	.99980	.99980	.99980	.99990	.99980	1.00010	.99980	1.00000	1.00000
.201	.200	60.74500	.99990	.99990	.99990	.99990	.99990	1.00020	.99990	1.00010	1.00010
.202	5.400	61.20600	.99940	.96350	.99940	.99950	.99940	.99970	.99950	.99960	.99950
.202	10.600	61.37900	.99930	.99940	.99940	.99940	.99930	.99960	.99940	.99960	.99950
.204	15.900	62.31200	.99890	.95580	.99500	.99880	.99920	.99950	.99920	.94220	.91060
.204	19.100	62.65800	.99770	.90460	.98600	.99770	.99920	.99950	.99820	.92480	.91040
			.99770	.90000	.98000	.99770	.99920	.99950	.99820	.92000	.90000

NB-701 OFB B16C507J2G12-87+CP

(CTPN97) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ. FT. WARP = 43.5974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
BREF = 37.9349 INCHES ZWARP = 16.2000 INCHES  
SCALE = .0405

### PARAMETRIC DATA

BETA	=	.0000	GPP	=	154.0000
DE	=	.0000	DA	=	.0000
X/L	=	.0000	LIP	=	.0000
NRI	=	.0000	RD	=	2.0000

CONC	TEMP	$\Delta T$	$\Delta T/\Delta C$	GRADIENT INTERVAL =	-5.00/	5.00
0.00	20.7	0.00	0.00	12		

MACH	ALPHA	$\phi$	W/M	WCH	Q/M	Q/CH	W/C	WOC	MFRI	MFRO	WC
.117	-3.200	20.52400	.17600	.17800	.17800	.17800	.18200	.18300	1.10140	1.10160	.16500
.116	.100	20.36600	.17400	.17800	.17400	.17700	.18000	.18200	1.09720	1.10910	.16400
.116	5.300	20.34600	.17500	.17600	.17500	.17600	.18200	.18500	1.10640	1.12830	.16400
.117	10.500	20.65000	.17700	.17700	.17700	.17200	.18400	.18300	1.11200	1.10620	.16500
.117	15.700	20.82800	.17900	.16800	.17900	.17000	.18600	.16800	1.12440	1.01390	.16500
.116	18.800	20.78500	.17900	.16400	.17900	.16900	.18700	.16000	1.12820	.96670	.16600
			.17900	.16000	.17900	.16000	.18700	.16000	1.12820	.96670	.16600
			.17900	.16000	.17900	.16000	.18700	.16000	1.12820	.96670	.16600



DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J26124874CP

(DDNS97) (29 SEP 73)

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 397/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPSI	CPSO	CPS11	CPS12	CPS01	CPS02	MON	PRTI	PRT0
.117	-3.200	-1.12800	-1.09200	-1.12800	-1.12400	-1.07500	-1.11000	.17100	.99970	1.00020
.116	.100	-1.19500	-1.10800	-1.19700	-1.19200	-1.13600	-1.08700	.17100	.99890	1.00010
.116	5.300	-1.20800	-1.22000	-1.20800	-1.20400	-1.21900	-1.22200	.17400	.99910	.99980
.117	10.500	-1.16700	-1.61500	-1.16700	-1.16700	-1.71300	-1.51700	.17300	.99970	.99930
.117	15.700	-1.18200	-2.31800	-1.17800	-1.18600	-2.59200	-2.04400	.15900	1.00000	.98530
.118	18.800	-1.19700	-2.72600	-1.19300	-1.20200	-3.06500	-2.38700	.15200	1.00000	.97970
GRADIENT	-.02091	-.00485	-.02091	-.02091	-.02091	-.01848	.00909	-.00030	-.00024	-.00003

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

NR-701 ORB B16C507J26124874CP

(DDNS97) (29 SEP 73)

RUN NO. 397/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.200	20.92400	1.00010	1.00010	.99990	.99970	.99970	.99930	.99970	.99990	.99970
.116	.100	20.36600	.99980	.99950	.99880	.99830	.99780	.99840	.99850	.99900	.99920
.116	5.300	20.34600	.99920	.99900	.99880	.99870	.99880	.99790	.99830	.99970	.99990
.117	10.500	20.65000	.99970	.99970	.99970	.99970	.99970	.99860	.99920	1.00000	.99990
.117	15.700	20.62800	1.00010	1.00010	1.00000	1.00000	1.00000	.99950	.99990	1.00010	1.00000
.118	18.800	20.72500	1.00010	1.00010	1.00000	1.00000	1.00000	.99960	.99990	1.00010	.99990
GRADIENT	-.04788	-.00009	-.00009	-.00018	-.00039	-.00042	-.00036	-.00027	-.00036	-.00027	-.00015

DATE 05 DEC 75

TABULATED PROPLUSION SOURCE DATA NAAL-701

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(PDN997) ( 29 SEP 73 )

NR-701 ORB B16C507J2G12487+CP

## REFERENCE DATA

SRFP = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LRFP = 19.2999 INCHES YGRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 397/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	ART07	PRTO8	PRTO9
.117	-3.200	20.52400	1.00010	1.00010	1.00010	1.00020	1.00010	1.00020	1.00010	1.00020	1.00020
.116	.100	20.36800	1.00010	1.00010	1.00010	1.00010	1.00010	1.00020	1.00010	1.00010	1.00020
.116	5.300	20.34800	.99900	1.00000	1.00020	1.00030	1.00020	1.00030	1.00020	1.00030	1.00030
.117	10.500	20.65000	.98170	.99340	.99990	1.00000	1.00010	1.00010	1.00000	.99960	.99840
.117	15.700	20.62800	.96420	.97580	.99980	1.00010	1.00010	1.00020	1.00010	.99110	.97760
.118	18.800	20.72500	.95780	.96570	.99880	1.00010	1.00000	1.00020	1.00000	.97970	.96570
GRADIENT	-.04788		.00000	.00000	.00000	-.00003	.00000	.00000	.00000	-.00003	.00000

NR-701 ORB B16C507J2G12487+CP

(CDN998) ( 29 SEP 73 )

## REFERENCE DATA

SRFP = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LRFP = 19.2999 INCHES YGRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 398/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	WTH	WOM	QWTH	QWOM	WTC	WOC	WTRI	WPRO	WC
.117	-3.200	20.63900	.26300	.26400	.26300	.26400	.26000	.26200	1.57210	1.50520	.16500
.117	.100	20.36800	.26300	.26600	.26300	.26600	.25900	.26300	1.57790	1.59950	.16400
.117	5.300	20.47900	.26300	.26100	.26300	.26100	.26000	.26200	1.57550	1.59100	.16500
.117	10.500	20.44700	.26300	.25700	.26400	.25800	.26200	.26500	1.59070	1.60780	.16400
.116	15.700	20.60300	.26200	.25000	.26200	.25400	.26300	.25600	1.58180	1.54450	.16600
.116	18.800	20.72700	.26500	.25000	.26500	.25600	.26400	.24700	1.59530	1.49300	.16500
GRADIENT	-.07485		.00000	.00061	.00000	.00061	-.00090	.00030	.00176	.00433	-.00030



## TABULATED PROPULSION SOURCE DATA NAAL-701

DATE 05 DEC 73

(DDNS98) ( 29 SEP 73 )

NR-701 ORB 816C507J2612487+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARRP = .0000 INCHES  
BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 398/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RD = 2.000

	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.117	-3.200	-3.42900	-3.44000	-3.44700	-3.41000	-3.36400	-3.51800	.24900	.25100	.99940	1.00000
.117	.100	-3.50700	-3.50800	-3.52400	-3.49000	-3.44800	-3.57000	.24800	.25100	.99900	1.00020
.117	5.300	-3.48000	-3.46700	-3.49600	-3.46000	-3.46800	-3.46800	.24800	.25100	.99920	1.00010
.117	10.500	-3.50200	-3.48600	-3.51800	-3.48600	-4.02100	-3.95000	.25000	.25400	.99980	.99630
.118	15.700	-3.44500	-4.78000	-3.45400	-3.43600	-5.01700	-4.90300	.25100	.24900	.99980	.98560
.118	18.800	-3.52200	-5.35400	-3.52700	-3.51600	-5.73800	-4.97100	.25300	.24100	.99980	.97740
GRADIENT		-.02364	-.02061	-.02333	-.02424	-.02485	-.01636	-.00030	.00000	-.00012	.00006

(EDNS98) ( 29 SEP 73 )

NR-701 ORB 816C507J2612487+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARRP = .0000 INCHES  
BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 398/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RC = 2.000

	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.200	20.63500	1.00000	1.00000	.99980	.99950	.99860	.99970	.99960	.99970	.99950
.117	.100	20.36800	1.00000	.99970	.99880	.99830	.99790	.99840	.99860	.99920	.99950
.117	5.300	20.47500	.99930	.99990	.99880	.99870	.99890	.99770	.99820	.99590	1.00000
.117	10.500	20.44700	1.00000	.99990	.99980	.99980	.99980	.99830	.99920	1.00010	1.00000
.118	15.700	20.80300	1.00000	1.00000	.99990	.99990	.99990	.99920	.99970	1.00000	.99980
.118	18.800	20.72700	1.00000	1.00000	1.00000	.99990	.99990	.99930	.99990	1.00000	.99970
GRADIENT		-.07485	.00000	-.00009	-.00030	-.00036	-.00021	-.00018	-.00030	-.00015	.00000

(FON998) ( 29 SEP 73 )

NR-701 ORB B16C507J2C12-87+GP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 399/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.117	-3.200	20.63500	1.00000	1.00000	1.00000	1.00010	1.00000	1.00010	1.00000	1.00010	1.00010
.117	.100	20.36800	1.00020	1.00020	1.00010	1.00020	1.00010	1.00020	1.00020	1.00020	1.00020
.117	5.300	20.47500	.99970	1.00020	1.00020	1.00020	1.00020	1.00020	1.00020	1.00020	1.00020
.117	10.500	20.44700	.98350	.99720	1.00010	1.00020	1.00020	1.00020	1.00020	1.00020	.99930
.118	15.700	20.80300	.95480	.98150	.99990	1.00020	1.00020	1.00020	1.00020	.99670	.98440
.118	18.800	20.72700	.94730	.96810	.99980	1.00010	1.00020	1.00010	1.00020	.99120	.96710
GRADIENT	-.07485		.00006	.00006	.00003	.00003	.00003	.00006	.00006	.00003	.00003

NR-701 ORB B16C507J2C12-87+GP

(FON998) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 399/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFRI	MFRO	VC
.117	-3.200	20.63700	.34900	.35000	.35000	.35000	.33000	.33200	1.99290	2.00640	.16300
.117	.100	20.37900	.34800	.34900	.34900	.34900	.32900	.33200	2.00420	2.02080	.16400
.116	5.300	20.33300	.35000	.34700	.35000	.34700	.33000	.33500	2.01070	2.04330	.16400
.117	10.500	20.61100	.34900	.34100	.35000	.34300	.33100	.33600	2.00470	2.03260	.16500
.117	15.700	20.69000	.35300	.34000	.35400	.34500	.33400	.33600	2.01810	2.03250	.16500
.118	18.800	20.89700	.35300	.33700	.35400	.34400	.33400	.33100	2.00950	1.98780	.16600
GRADIENT	-.06000		-.00000	-.00061	-.00000	-.00000	-.00000	-.00000	.00342	.00436	-.00000



TABULATED PROPULSION SOURCE DATA NAAL-701

NR-701 ORB B16C507J2612-87+CP

REFERENCE DATA

MREF = 4.4119 90.FT. XARRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARRP = .0000 INCHES  
BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RD = .000

RUN NO. 399/ 0 RAVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CP81	CP90	CP812	CP901	CP902	MIN	MON	PRT11	PRT0
.117	-3.200	-6.31200	-6.39000	-6.26100	-6.21700	-6.48200	.32300	.32600	.99940	1.00010
.117	.100	-6.43300	-6.44300	-6.38900	-6.32700	-6.53800	.32900	.32800	.99910	1.00020
.116	5.900	-6.47700	-6.62800	-6.42900	-6.45700	-6.79800	.32400	.33000	.99920	1.00020
.117	10.900	-6.36900	-6.84500	-6.43500	-6.34200	-6.76900	.32500	.33100	.99960	.99750
.117	15.700	-6.47500	-7.89000	-6.52000	-7.94500	-7.75500	.32800	.33500	.99980	.98860
.116	16.800	-6.44800	-8.39700	-6.41100	-8.63900	-8.15400	.32900	.33200	.99950	.98040
GRADIENT		-.03667	-.02818	-.03576	-.03333	-.02303	.00000	.00000	-.00009	.00003

NR-701 ORB B16C507J2612-87+CP

REFERENCE DATA

MREF = 4.4119 90.FT. XARRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARRP = .0000 INCHES  
BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RD = 2.000

RUN NO. 399/ 0 RAVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.200	20.63700	1.00000	1.00000	.99980	.99950	.99840	.99890	.99950	.99970	.99960
.117	.100	20.37500	1.00010	.99980	.99880	.99830	.99790	.99840	.99870	.99930	.99900
.116	5.900	20.33300	.99950	.99910	.99870	.99870	.99970	.99730	.99810	.99990	1.00000
.117	10.900	20.61100	.99980	.99980	.99980	.99960	.99960	.99770	.99890	1.00010	.99990
.117	15.700	20.69000	1.00000	1.00000	.99990	.99990	.99990	.99890	.99970	1.00000	.99980
.116	16.800	20.69700	.99990	.99990	.99990	.99990	.99990	.99970	.99970	.99990	.99820
GRADIENT		-.08000	.00003	-.00006	-.00000	-.00036	-.00015	-.00015	-.00024	-.00012	.00000

NR-771 ORB 816C507J2G12487+CP (FDN399) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ. FT. 10GRP = 43.5974 INCHES  
LREF = 19.2909 INCHES 11GRP = 50.0000 INCHES  
BREF = 37.9349 INCHES 21GRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA	=	.000	GPP	=	154,000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	.000
NGT	=	.000	RD	=	2,000

RUN NO. 399/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	G	PRT01	PRT02	PRT03	PRT04	PRT06	PRT07	PRT08	PRT09
.117	-3.200	20.63700	1.00000	1.00000	1.00000	1.00010	1.00000	1.00000	1.00010	1.00010
.117	.119	20.37900	1.00010	1.00010	1.00010	1.00020	1.00010	1.00020	1.00020	1.00020
.116	5.900	20.33300	1.00010	1.00010	1.00010	1.00020	1.00010	1.00020	1.00020	1.00020
.117	10.500	20.61100	.99990	.99990	1.00000	1.00000	1.00010	1.00000	.99990	.99990
.117	15.700	20.69200	.99990	.99990	.99990	1.00000	1.00000	1.00000	.99990	.99990
.118	18.800	20.89700	.99820	.98000	.99980	.99990	1.00000	1.00000	.99690	.97690
	GRADIENT	- .08770	.00003	.00003	.00003	.00003	.00006	.00006	.00003	.00003

NR-701 ORB B16C507J2C12W87+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT.      WARP = 43.5974 INCHES  
 UREF = 19.2999 INCHES      YARP = .0000 INCHES  
 BREF = 37.9349 INCHES      ZARP = 16.2000 INCHES  
 SCALE = .0405

### PARAMETRIC DATA

BETA	=	.0000	GPP	=	154.0000
DE	=	.0000	DA	=	.0000
X/L	=	.0000	LIP	=	.0000
NBT	=	.0000	RO	=	2.0000

RUN NO. 400 / 0    RVAL = .12    GRADIENT INTERVAL = -5.00 / 5.00

	ALPHA	$\beta$	WM	WM	WM	QUM	QUM	WIC	WOC	MFRI	MFRO	VC
MAO-4												
	.117	-3.300	.42000	.42100	.42100	.42100	.42100	.37600	.38100	2.29290	2.31130	.16900
	.117	.100	.42000	.42100	.42100	.42100	.42000	.37600	.38100	2.29860	2.31820	.16400
	.117	5.350	.42000	.42100	.42100	.42100	.42100	.37600	.38000	2.30070	2.30970	.16400
	.117	10.500	.42100	.42100	.42200	.42200	.41600	.37900	.38900	2.29410	2.35180	.16500
	.118	15.700	.42100	.40800	.42200	.41300	.38700	.38000	.38600	2.28780	2.32840	.16800
	.117	16.600	.42100	.40500	.42100	.41300	.38700	.38200	.38200	2.29470	2.30390	.16500
MAO-5												
	.117	-0.0647	.00000	.00029	.00000	.00029	.00029	.00000	.00000	.00168	.00203	-.00029



DATE 05 DEC 73  
T-CALCULATED PROLAPSION SOURCE DATA NUAL-701  
NR-701 ORS 816C507J2C12A87+GP  
PAGE 65  
(DDMMDD) ( 29 SEP 73 )

REFERENCE DATA

SRDF = 4.4119 98.FT. WARP = 43.9974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
SRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
N/L = .000 L/P = .000  
NBT = .000 RD = 2.000

RUN NO. 400/ 0 RVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CP81	CP80	CP811	CP812	CP801	CP802	MIN	MON	PRT1	PRT0
.117	-3.300	-8.94400	-9.04100	-9.03600	-8.85200	-8.86400	-9.21900	.38000	.38300	.99950	1.00080
.117	.100	-9.04100	-9.10700	-9.12600	-8.93700	-8.94300	-9.27100	.38000	.38300	.99910	1.00010
.117	5.300	-9.04900	-9.16300	-9.12900	-8.96200	-9.02500	-9.30100	.38000	.38200	.99920	.99900
.117	10.500	-8.95200	-9.63100	-9.03300	-8.87000	-9.24500	-10.00000	.38100	.39300	.99960	.99860
.116	15.700	-8.86700	-10.30000	-8.94400	-8.79100	-10.30000	-10.40000	.36200	.39400	.99980	.99720
.117	18.800	-8.95200	-11.00000	-9.01900	-8.88400	-11.10000	-10.90000	.38200	.39200	.99960	.98260
GRADIENT		-.02853	-.01941	-.02647	-.03088	-.02324	-.01529	-.00000	.00000	-.00012	-.00003

REFERENCE DATA

SRDF = 4.4119 98.FT. WARP = 43.9974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
SRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
N/L = .000 L/P = .000  
NBT = .000 RD = 2.000

NR-701 ORS 816C507J2C12A87+GP  
(DDMMDD) ( 29 SEP 73 )

RUN NO. 400/ 0 RVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.300	20.50100	1.00010	1.00010	.99990	.99950	.99830	.99880	.99980	.99960	.99970
.117	.100	20.37700	1.00000	.99990	.99880	.99820	.99780	.99820	.99860	.99940	.99970
.117	5.300	20.41300	.99980	.99920	.99870	.99880	.99900	.99710	.99810	1.00000	1.00000
.117	10.500	20.62000	.99990	.99980	.99970	.99970	.99970	.99720	.99890	1.00010	1.00000
.116	15.700	20.78700	1.00000	1.00000	1.00000	1.00000	.99990	.99880	.99970	1.00000	.99990
.117	18.800	20.70900	1.00010	1.00010	1.00000	1.00000	1.00000	.99900	.99980	1.00000	.99860
GRADIENT		-.03647	-.00003	-.00006	-.00032	-.00038	-.00015	-.00118	-.00029	-.00012	-.00000

NR-701 ORB B16C507J2612487+GP

(PDM400) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 80.FT. 100RP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 V/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 400/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	θ	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.117	-3.300	20.50100	1.00010	1.00010	1.00010	1.00020	1.00010	1.00030	1.00020	1.00020	1.00020
.117	.100	20.37700	1.00010	1.00010	1.00010	1.00020	1.00010	1.00020	1.00020	1.00020	1.00020
.117	5.300	20.41300	1.00020	1.00020	1.00020	1.00020	1.00020	1.00030	1.00020	1.00030	.99420
.117	10.900	20.62300	.99320	.99940	1.00010	1.00010	1.00010	1.00020	1.00010	1.00010	1.00000
.116	15.700	20.76700	.96470	.99470	1.00000	1.00000	1.00000	.99940	1.00000	.99940	.99140
.117	16.800	20.79900	.94190	.98680	1.00000	1.00010	1.00000	.99790	1.00010	.99790	.98010
GRADIENT	-0.3647	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	.00000	.00000

NR-701 ORB B16C507J2612487+GP

(CDM401) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 80.FT. 100RP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 V/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 401/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	θ	WM	WM	Q/M	Q/M	W/C	W/C	MPRO	WC
.164	-3.300	40.62400	.16000	.19100	.16700	.19000	.19400	.19500	.84020	.84250
.164	.200	40.63900	.16400	.19200	.16900	.19000	.19100	.19600	.82690	.84670
.165	5.300	40.66300	.16400	.16900	.16800	.16800	.19300	.19600	.83370	.85680
.165	10.900	41.13100	.16900	.16900	.16900	.16200	.19300	.19300	.84450	.82810
.166	15.800	41.30900	.16200	.17500	.19100	.17800	.19900	.16800	.85160	.72660
.166	16.900	41.46800	.16900	.17000	.19200	.17400	.20000	.16600	.85490	.70940
GRADIENT	.00297	.00001	-.00004	.00000	-.00004	.00000	-.00001	.00027	-.00014	.00000





## TABULATED PROPLUSION SOURCE DATA NUAL-701

DATE 01 DEC 73

(EDM401) ( 29 SEP 73 )

NR-701 ORB B16C507J2G12A87+CP

## REFERENCE DATA

REF = 4.4119 80.FT. WARP = 43.9974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 401/ 0 RWL = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CP81	CP80	CP811	CP812	CP801	CP802	MIN	NON	PRT1	PRT0
.164	-3.900	-2.7900	-2.3300	-2.7400	-2.7900	-2.3900	-2.2700	.18100	.18200	.99800	.99970
.164	.200	-3.3200	-2.4800	-3.3300	-3.3100	-2.8500	-2.3200	.17900	.18300	.99700	.99980
.165	5.300	-3.3000	-3.3000	-3.3000	-3.2900	-3.3000	-3.2000	.18000	.18900	.99740	.99880
.165	10.900	-2.9100	-2.7100	-2.9000	-2.9300	-2.8000	-1.6000	.18400	.18200	.99870	.99890
.166	15.600	-2.8000	-1.2400	-2.8400	-2.9500	-1.4600	-1.03100	.18600	.16100	.99920	.97460
.166	18.900	-2.9900	-1.4900	-2.9600	-3.0100	-1.7200	-1.26800	.18700	.15900	.99910	.96900
GRADIENT		-.01595	-.02405	-.01595	-.01568	-.02003	-.00135	-.00054	.00027	-.00046	-.00003

(EDM401) ( 29 SEP 73 )

NR-701 ORB B16C507J2G12A87+CP

## REFERENCE DATA

REF = 4.4119 80.FT. WARP = 43.9974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 401/ 0 RWL = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.900	40.82400	.99980	.99990	.99910	.99880	.99790	.99830	.99890	.99970	.99870
.164	.200	40.83900	.99850	.99790	.99650	.99600	.99540	.99620	.99640	.99720	.99750
.165	5.300	40.86300	.99700	.99710	.99680	.99680	.99710	.99530	.99870	.99890	.99890
.165	10.900	41.13100	.99880	.99880	.99870	.99870	.99870	.99870	.99870	.99920	.99910
.166	15.600	41.30900	.99930	.99930	.99930	.99930	.99920	.99870	.99910	.99930	.99910
.166	18.900	41.48200	.99920	.99920	.99920	.99920	.99920	.99870	.99910	.99920	.99970
GRADIENT		.00297	-.00030	-.00043	-.00070	-.00076	-.00268	-.00057	-.00068	-.00049	-.00032

DATE 09 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

(FD-302) (Rev. 7-73)

NR-701 CQB 816C507J2612A07+CP

**REFERENCE DATA**

9007 = 4.4119 INCHES  
 9007 = 19.2999 INCHES  
 9007 = 37.9349 INCHES  
 SCALE = .0405

### PARAMETRIC DATA

BETA	=	.000	GMP	=	154.0000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	.000
NBT	=	.000	RD	=	2.000

RUN NO. 401/0 RVAL = .16 GRADIENT INTERVAL = -5.13/ 5.00

[illegible]

NR-701 ORG B16C3D7J2C124674CP

(COM402) ( 29 SEP 73 )

### REFERENCE DATA

8807	=	4.4119	90.FT.	3600	=	43.9874	INCHES
1007	=	19.2999	INCHES	1000	=	.0020	INCHES
8807	=	37.9349	INCHES	2000	=	16.2070	INCHES
SCALE	=						

### PARAMETRIC DATA

BETA	=	.000	GP	=	154,000
DE	=	.000	DA	=	.000
KL	=	.000	LIP	=	.000
NBT	=	.000	RD	=	2,000

ITEM NO. 402/0 RVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

SESSION	ALPHA	$\theta$	WEM	WOM	QWEM	QWOM	WIC	WOC	MFRI	MFRO	WC
1.08	-3.500	40.78000	.27500	.27700	.27400	.27600	.27100	.27400	1.17090	1.18480	.23100
1.64	.100	40.99600	.27400	.27700	.27300	.27600	.26900	.27100	1.16560	1.17400	.23100
1.64	5.500	40.64700	.27500	.27400	.27200	.27400	.27100	.27000	1.16240	1.17400	.23200
1.65	10.500	40.97900	.27300	.27500	.27200	.26800	.27200	.27400	1.17170	1.18120	.23200
1.68	15.000	41.30300	.27400	.26800	.27500	.26600	.27300	.27400	1.17030	1.09710	.23300
1.68	18.800	41.62500	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	22.600	41.95100	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	26.400	42.27700	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	30.200	42.60300	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	34.000	42.92900	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	37.800	43.25500	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	41.600	43.58100	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	45.400	43.90700	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	49.200	44.23300	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	53.000	44.55900	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	56.800	44.88500	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	60.600	45.21100	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	64.400	45.53700	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	68.200	45.86300	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	72.000	46.18900	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	75.800	46.51500	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	79.600	46.84100	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	83.400	47.16700	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	87.200	47.49300	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	91.000	47.81900	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	94.800	48.14500	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	98.600	48.47100	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	102.400	48.79700	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	106.200	49.12300	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300
1.68	110.000	49.44900	.27600	.25400	.27300	.26300	.27500	.27000	1.17910	1.05690	.23300

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(DON402) ( 29 SEP 73 )

NR-701 ORB 816C507J2G124874CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RD = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 402/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CP90	CPS11	CPS12	CP901	CP902	MIN	MON	PRT1	PRT0
.165	-3.500	-1.49500	-1.48800	-1.50500	-1.48100	-1.44700	-1.53000	.25900	.26200	.59350	.99970
.164	.100	-1.54300	-1.44600	-1.55100	-1.53500	-1.47400	-1.41700	.25700	.25900	.59720	.99960
.165	5.300	-1.53800	-1.46000	-1.54800	-1.52800	-1.50800	-1.41900	.25800	.26000	.99740	.99950
.165	10.500	-1.47900	-1.92100	-1.49700	-1.46900	-1.99000	-1.85300	.26000	.26400	.99880	.99160
.166	15.800	-1.46500	-2.60000	-1.47300	-1.45700	-1.84000	-2.07000	.26300	.25000	.99890	.97260
.166	18.900	-1.48700	-3.03500	-1.49400	-1.48000	-3.35000	-2.72000	.26300	.24400	.99920	.96160
GRADIENT		-.01389	.01167	-.01278	-.01590	-.00750	.03139	-.00056	-.00083	-.00036	-.00003

NR-701 ORB 816C507J2G124874CP

(EDN402) ( 29 SEP 73 )

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RD = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 402/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.165	-3.500	40.72000	.99960	.99950	.99970	.99840	.95700	.99790	.99870	.99870	.99850
.164	.100	40.59900	.99890	.99830	.99670	.99600	.99520	.99630	.99640	.99740	.99780
.135	5.300	40.84700	.99740	.99710	.99660	.99660	.95710	.99570	.99580	.99850	.99890
.165	10.500	40.97900	.99970	.99890	.99880	.99880	.90890	.99660	.99790	.99940	.99930
.166	15.800	41.30300	.99910	.99910	.99900	.99900	.99970	.99810	.99880	.99910	.99860
.166	18.900	41.42200	.99930	.99930	.99930	.99920	.99930	.99850	.99910	.99930	.99970
GRADIENT		-.03361	-.00019	-.00033	-.00064	-.00067	-.00050	-.00044	-.00056	-.00036	-.00019

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TABULATED PROPELLSION SOURCE DATA NAAL-701

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NR-701 ORB 816C307J2G124874P

(FDMA02) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = .000  
 NBT = .000 RD = 2.000

RUN NO. 402/ 0 RV/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.165	-3.500	40.72000	.99960	.99960	.99960	.99970	.99960	.99960	.99960	.99970	.99970
.164	.100	40.59900	.99950	.99950	.99950	.99960	.99950	.99950	.99950	.99960	.99960
.165	5.300	40.84700	.99940	.99940	.99940	.99950	.99940	.99940	.99940	.99960	.99960
.165	10.500	40.97900	.96780	.98950	.99950	.99960	.99950	.99970	.99950	.99910	.99700
.166	15.800	41.30300	.92970	.95740	.99980	.99910	.99930	.99910	.99930	.98630	.96200
.166	18.900	41.42200	.91780	.93430	.99790	.99930	.99920	.99950	.99930	.96930	.93640
GRADIENT	-0.0361		-0.00003	-0.00003	-0.00003	-0.00003	-0.00003	-0.00003	-0.00003	-0.00003	-0.00003

NR-701 ORB 816C307J2G124874P

(CDMA03) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = .000  
 NBT = .000 RD = 2.000

RUN NO. 403/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WM	WM	WM	WM	WM	WM	WM	WM	WM
.164	-3.500	40.63800	.35800	.35800	.35700	.35700	.35700	.35700	.35700	.35700	.35700
.164	.100	40.56800	.35700	.35700	.35700	.35700	.35700	.35700	.35700	.35700	.35700
.165	5.300	40.82400	.35800	.35800	.35800	.35800	.35800	.35800	.35800	.35800	.35800
.165	10.600	40.92400	.35400	.35400	.35200	.34600	.33500	.34000	.34000	.34000	.34000
.166	15.800	41.43400	.35600	.35600	.35400	.34500	.33600	.33000	.33000	.33000	.33000
.166	18.900	41.43100	.35600	.35600	.35400	.34400	.33700	.32700	.32700	.32700	.32700
GRADIENT	-0.01944		-0.00028	-0.00028	-0.00000	-0.00000	-0.00028	-0.00028	-0.00028	-0.00028	-0.00028



DATE 03 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB 816C507J2G12M87+CP

(00N403) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = .000  
NBT = .000 RD = 2.000

RUN NO. 403/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPSI1	CPSI2	CPSO1	CPSO2	MIN	MON	PRTI	PRTI9
.164	-3.900	-2.94200	-2.97800	-2.97000	-2.91400	-2.90700	-3.05000	.33000	.33400	.99860	.99970
.164	.100	-2.99100	-2.99900	-3.01600	-2.96700	-2.93800	-3.06000	.32900	.33500	.99720	.99960
.165	5.300	-2.95800	-2.88200	-2.54300	-2.93300	-2.93400	-2.83000	.32900	.33000	.99740	.99950
.165	10.600	-2.85000	-3.32100	-2.87400	-2.82700	-3.33300	-3.30800	.32800	.33600	.99880	.99280
.166	15.800	-2.82100	-4.07000	-2.84200	-2.80100	-4.27300	-3.86800	.32900	.33200	.99900	.97440
.166	18.900	-2.82100	-4.58100	-2.84100	-2.80100	-4.91200	-4.26700	.32900	.33200	.99910	.96400
GRADIENT		-.01361	-.00583	-.01278	-.01472	-.00861	-.00278	-.00028	.00028	-.00039	-.00023

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = .000  
NBT = .000 RD = 2.000

RUN NO. 403/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTI1	PRTI2	PRTI3	PRTI4	PRTI5	PRTI6	PRTI7	PRTI8	PRTI9
.164	-3.900	40.63800	.99960	.99960	.99920	.99870	.99700	.99780	.99880	.99890	.99870
.164	.100	40.56800	.99900	.99840	.99660	.99580	.99510	.99670	.99630	.99750	.99800
.165	5.300	40.82400	.99750	.99710	.99660	.99670	.99720	.99480	.99560	.99870	.99900
.165	10.600	40.92400	.99910	.99900	.99880	.99880	.99890	.99630	.99780	.99950	.99930
.166	15.800	41.43400	.99920	.99920	.99910	.99910	.99900	.99790	.99880	.99920	.99900
.166	18.900	41.43100	.99930	.99930	.99920	.99920	.99920	.99820	.99910	.99930	.99900
GRADIENT		-.01944	-.00017	-.00033	-.00072	-.00081	-.00053	-.00050	-.00069	-.00039	-.00019

DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J2G12A87\*CP

(FDN403) ( 29 SEP 73 )

## REFERENCE DATA

BRP = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRP = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 403/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.164	-3.500	40.63900	.99960	.99960	.99960	.99970	.99960	.99960	.99970	.99980	.99980
.164	.100	40.56800	.99960	.99960	.99950	.99960	.99950	.99950	.99960	.99970	.99970
.165	5.300	40.82400	.99940	.99940	.99940	.99950	.99940	.99940	.99940	.99950	.99950
.165	10.600	40.92400	.97080	.99340	.99950	.99960	.99950	.99950	.99960	.99950	.99810
.166	15.800	41.43400	.92160	.96730	.99910	.99920	.99910	.99940	.99920	.99340	.97220
.166	18.900	41.43100	.91780	.94160	.99890	.99930	.99920	.99950	.99930	.98100	.94070
GRADIENT	-.01944	.00000	.00000	.00000	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003

NR-701 ORB B16C507J2G12A87\*CP

(CDN404) ( 29 SEP 73 )

## REFERENCE DATA

BRP = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRP = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 404/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WTM	WCH	CMIM	CMCH	WIC	WOC	MFRI	MFRO	WC
.165	-3.500	40.77900	.42500	.42600	.42400	.42500	.38100	.38600	1.64890	1.66710	.23100
.164	.100	40.51300	.42400	.42600	.42400	.42500	.38100	.38600	1.65210	1.67390	.23000
.165	5.300	40.87800	.42500	.42500	.42400	.42400	.38200	.38200	1.64810	1.69020	.23100
.166	10.500	41.12900	.42700	.41700	.42600	.41800	.38300	.39000	1.65060	1.68000	.23200
.166	15.800	41.44000	.42700	.40900	.42600	.41700	.38400	.38500	1.64620	1.65340	.23300
.166	18.900	41.45600	.42700	.40400	.42600	.41600	.38400	.38600	1.64850	1.65560	.23300
GRADIENT	-.07589	-.00028	-.00000	-.00000	.00000	-.00000	-.00000	.00000	.00189	.00189	-.00028

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TABULATED PROPLUSION SOURCE DATA NAAL-701

(DDN404) ( 29 SEP 73 )

NR-701 ORB B16C507J2G12487+CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RO = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 404/ 0 R/V/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CP81	CP90	CP11	CP12	CP901	CP902	MIN	MON	PRT1	PRT0
.165	-3.500	-4.16300	-4.22300	-4.20400	-4.12200	-4.12700	-4.32000	.38200	.38700	.99840	.99950
.164	.100	-4.24000	-4.25600	-4.27800	-4.20100	-4.17600	-4.33700	.38200	.38700	.99740	.99970
.163	5.300	-4.21400	-4.11100	-4.25300	-4.17500	-4.17500	-4.04700	.38300	.38300	.99740	.99940
.166	10.500	-4.16700	-4.60400	-4.20600	-4.12900	-4.53200	-4.65600	.38500	.39500	.99850	.99470
.166	15.800	-4.11700	-5.44300	-4.15200	-4.08200	-5.57800	-5.30800	.38500	.39700	.99890	.97720
.166	18.900	-4.12700	-6.01000	-4.16100	-4.09400	-6.27200	-5.74700	.38600	.40300	.99910	.96790
GRADIENT		-.02139	-.00917	-.02056	-.02194	-.01361	-.01472	-.00000	.00000	-.00028	.00006

(EDN404) ( 29 SEP 73 )

NR-701 ORB B16C507J2G12487+CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RO = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 404/ 0 R/V/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.165	-3.500	40.77900	.99940	.99940	.99900	.99850	.99670	.99760	.99870	.99870	.99850
.164	.100	40.51300	.99920	.99870	.99670	.99590	.99520	.99620	.99660	.99770	.99830
.163	5.300	40.67800	.99770	.99720	.99660	.99660	.99710	.99460	.99550	.99870	.99900
.166	10.500	41.12900	.99890	.99870	.99860	.99860	.99870	.99570	.99740	.99930	.99910
.166	15.800	41.44000	.99920	.99920	.99910	.99910	.99900	.99770	.99880	.99920	.99900
.166	18.900	41.45800	.99920	.99920	.99920	.99920	.99920	.99870	.99900	.99920	.99900
GRADIENT		-.07389	-.00006	-.00019	-.00064	-.00072	-.00042	-.00039	-.00058	-.00028	-.00006

NR-701 ORB B16C507J2G12487+CP

(FDNA04) ( 29 SEP 75 )

## REFERENCE DATA

BREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 404/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.165	-3.500	40.77900	.99940	.99940	.99940	.99950	.99940	.99960	.99940	.99960	.99960
.164	.100	40.51300	.99960	.99960	.99970	.99980	.99980	.99980	.99970	.99980	.99980
.165	5.300	40.87800	.99930	.99930	.99940	.99930	.99950	.99950	.99940	.99950	.99950
.166	10.500	41.12900	.97820	.99630	.99930	.99940	.99930	.99950	.99940	.99940	.99930
.166	15.800	41.44000	.92190	.97630	.99910	.99920	.99920	.99920	.99920	.99960	.98090
.166	18.900	41.45800	.91780	.95290	.99910	.99930	.99920	.99940	.99920	.98990	.95170
GRADIENT		-.07389	.00006	.00006	.00006	.00006	.00006	.00006	.00006	.00006	.00006

NR-701 ORB B16C507J2G12487+CP

(CDNA05) ( 29 SEP 75 )

## REFERENCE DATA

BREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 405/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFR1	MFR0	WC
.201	-3.600	60.82000	.20300	.20800	.20100	.20800	.20900	.21200	.74430	.75240	.28200
.201	.200	60.95100	.19900	.20800	.20800	.20800	.20900	.21300	.72780	.75490	.28200
.202	5.400	61.26700	.20000	.20400	.19800	.20200	.20700	.21400	.73320	.75970	.28200
.202	10.600	61.50200	.20500	.19600	.20300	.19700	.20400	.20400	.75240	.72000	.28300
.203	15.900	62.28700	.20800	.18600	.20600	.19100	.21400	.18000	.75320	.63330	.28500
.203	19.100	62.28800	.20900	.18000	.20700	.18600	.21600	.18000	.75910	.63390	.28500
GRADIENT		.03447	-.00105	.00000	-.00079	-.00000	-.00105	.00026	-.00434	.00066	.00000





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TABULATED PROPLUSION SOURCE DATA MAAL-701

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NR-701 ORB B16C507J2G12W487+CP

(DDMMDD5) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 98.FT. YARP = 43.9974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RD = 2.000

RUN NO. 403/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CP80	CPS11	CPS12	CP904	CP902	MON	PRT1	PRT0
.201	-3.600	.00000	.03100	.00000	.02400	.03900	.19600	.19700	.99840	.99990
.201	.200	-.05600	.02100	-.05600	-.05700	.03600	.19200	.19800	.99570	.99980
.202	5.400	-.05900	-.04400	-.05500	-.05600	-.04900	.19400	.20100	.99610	.99830
.202	10.600	-.01000	-.44200	-.01000	-.01000	-.32300	.19900	.19300	.99870	.98460
.203	15.900	-.07600	-.89600	-.07500	-.1.07500	-.71600	.20000	.17300	.99890	.96590
.203	19.100	-.01600	-1.10000	-.01700	-1.27900	-.92100	.20200	.17400	.99900	.96020
GRADIENT	-.01474	-.00263	-.01474	-.01500	-.00500	-.00079	-.00105	.00026	-.00071	-.00003

NR-701 ORB B16C507J2G12W487+CP

(DDMMDD5) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 98.FT. YARP = 43.9974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = .000  
NBT = .000 RD = 2.000

RUN NO. 403/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.82000	.99970	.99980	.99890	.99850	.99710	.99770	.99860	.99870	.99820
.201	.200	60.95100	.99800	.99710	.99510	.99430	.99340	.99490	.99500	.99580	.99630
.202	5.400	61.26700	.99590	.99560	.99520	.99520	.99560	.99320	.99410	.99770	.99840
.202	10.600	61.50200	.99890	.99880	.99880	.99870	.99870	.99660	.99790	.99940	.99920
.203	15.900	62.28700	.99910	.99910	.99900	.99900	.99890	.99820	.99880	.99910	.99870
.203	19.100	62.28800	.99920	.99920	.99910	.99910	.99920	.99870	.99910	.99920	.99870
GRADIENT	.03447	-.00045	-.00066	-.00100	-.00111	-.00111	-.00097	-.00074	-.00095	-.00076	-.00050

NR-701 ORB 810C507J2C12-87+GP

(FDM405) ( 29 SEP 75 )

## REFERENCE DATA

SRFP = 4.4119 98.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 405/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.600	60.82000	.99980	.99980	.99980	.99990	.99980	1.00010	.99980	1.00000	1.00000
.201	.200	60.95100	.99970	.99970	.99970	.99980	.99970	1.00000	.99970	.99990	.99990
.202	5.400	61.26700	.99380	.99850	.99950	.99960	.99950	.99980	.99960	.99970	.99970
.202	10.600	61.50200	.95650	.97270	.99930	.99950	.99950	.99980	.99950	.99380	.98310
.203	15.900	62.28700	.93710	.94280	.99410	.99900	.99900	.99930	.99890	.95200	.94170
.203	19.100	62.28800	.93060	.93120	.98510	.99860	.99920	.99950	.99820	.93820	.93220
GRADIENT	.03447		-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003

NR-701 ORB 810C507J2C12-87+GP

(CDM408) ( 29 SEP 75 )

## REFERENCE DATA

SRFP = 4.4119 98.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRFP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 406/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	W/M	W/M	W/M	W/C	W/C	W/C	W/C	W/C	W/C
.201	-3.600	60.82000	.28300	.28800	.28100	.28500	.27900	.28400	.28390	1.00970	.28100
.201	.200	60.97100	.28200	.28900	.28100	.28600	.27700	.28200	.28610	1.00320	.28100
.202	5.400	61.05900	.28100	.28700	.28000	.28500	.27800	.28300	.28800	1.00520	.28100
.202	10.700	61.47600	.26300	.27400	.26100	.27500	.26100	.28200	.28620	.99880	.28200
.203	15.900	62.21900	.26700	.26600	.28500	.27500	.28300	.25600	.28220	.99660	.28400
.203	19.100	62.31300	.26700	.25900	.28500	.27100	.28300	.25500	.28680	.99680	.28400
GRADIENT	.01816		-.00026	.00026	-.00003	.00026	-.00003	-.00003	-.00003	-.00171	-.00003



TABULATED PROFUSION SOURCE DATA NAAL-701

NR-701 CRB B16C507J2G12NR7+GP (IDN406) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YRRP = .0000 INCHES  
BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .0000 GPP = 154.0000  
DE = .0000 DA = .0000  
X/L = .0000 LIP = .0000  
NBT = .0000 RD = 2.0000

RUN NO. 406/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.201	-3.600	-78700	-78600	-79400	-78000	-75700	-81600	.26600	.27100	.99830	.99990
.201	.200	-84000	-76400	-84700	-83400	-78600	-74100	.26500	.26900	.99610	.99980
.201	5.400	-84100	-77500	-84900	-83400	-81100	-73900	.26800	.27000	.99630	.99970
.202	10.700	-78400	-1.24500	-79000	-77800	-1.33400	-1.15500	.26900	.27300	.99860	.98660
.203	15.900	-77500	-1.88600	-78000	-77000	-2.11200	-1.66000	.27000	.25300	.99890	.95960
.203	19.100	-77100	-2.22900	-77400	-76800	-2.49000	-1.95900	.27100	.25500	.99900	.94970
GRADIENT	-.01395	.00579	.01421	-.01395	-.01421	-.01763	.01974	-.00026	-.00053	-.00058	-.00003

REFERENCE DATA

SREF = 4.4119 SQ.FT. XRRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YRRP = .0000 INCHES  
BREF = 37.9349 INCHES ZRRP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .0000 GPP = 154.0000  
DE = .0000 DA = .0000  
X/L = .0000 LIP = .0000  
NBT = .0000 RD = 2.0000

RUN NO. 406/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.80200	.99980	.99980	.99970	.99840	.99640	.99780	.99860	.99870	.99820
.201	.200	60.87100	.99870	.99780	.99550	.99450	.99330	.99500	.99530	.99640	.99690
.201	5.400	61.05500	.99610	.99570	.99530	.99540	.99590	.99280	.99400	.99800	.99870
.202	10.700	61.47600	.99880	.99870	.99860	.99870	.99870	.99580	.99750	.99950	.99930
.203	15.900	62.21900	.99920	.99910	.99910	.99920	.99890	.99790	.99870	.99910	.99880
.203	19.100	62.31300	.99920	.99920	.99920	.99910	.99920	.99840	.99900	.99920	.99880
GRADIENT	.01816	-.00029	-.00047	-.00092	-.00103	-.00103	-.00082	-.00068	-.00087	-.00061	-.00034

NR-701 ORB B16C507J2G12A87+GP

(FDN406) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRZF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 4067 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.201	-3.600	60.80200	.99980	.99980	.99980	.99990	.99980	1.00010	.99980	1.00000	1.00000
.202	.200	60.87100	.99980	.99970	.99980	.99980	.99970	1.00020	.99980	1.00000	1.00000
.203	5.400	61.05500	.99980	.99970	.99970	.99970	.99960	1.00000	.99970	.99990	.99980
.202	10.700	61.47600	.99980	.99970	.99950	.99960	.99950	.99990	.99960	.99800	.99300
.201	15.900	62.21900	.99980	.99970	.99800	.99820	.99910	.99940	.99910	.97110	.93650
.203	19.100	62.31300	.99980	.99940	.99470	.99920	.99910	.99950	.99910	.93750	.91070
GRADIENT	.0405	.0405	.00000	-.00003	.00000	-.00003	-.00003	-.00003	.00000	.00000	.00000

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRZF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 4077 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WM	WM	Q/M	Q/M	W/C	W/C	MFR1	MFR0	VC
.201	-3.600	60.76500	.35700	.36100	.35900	.35900	.33800	.34300	1.20570	1.22370	.28000
.202	.200	60.85700	.35900	.36200	.35400	.35800	.33600	.34200	1.19730	1.21160	.28100
.203	5.400	61.28300	.35700	.36200	.35600	.36000	.33700	.34100	1.19710	1.21180	.28200
.202	10.700	61.53900	.36300	.36100	.35300	.35500	.34200	.34800	1.21320	1.23310	.28200
.203	15.900	62.24800	.36200	.34200	.35900	.34300	.33700	.33700	1.20980	1.18630	.28400
.203	19.100	62.28900	.36500	.33800	.35000	.35400	.34400	.33500	1.21220	1.17980	.28400
GRADIENT	.02421	.02421	-.00053	-.00026	-.00026	-.00026	-.00053	-.00079	-.00021	-.00318	.00026

NR-701 ORB B16C507J2G12A87+GP

(CDN407) ( 29 SEP 73 )



REFERENCE DATA  
SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA  
BETA = .0000 GPP = 154.0000  
DE = .0000 DA = .0000  
X/L = .0000 LIP = 4.0000  
NBT = .0000 RD = 3.0000

RUN NO. 4077 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPSI	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.201	-3.620	-1.6670	-1.6980	-1.6840	-1.6970	-1.6480	-1.7480	.33100	.33600	.99850	.99990
.201	.200	-1.7250	-1.6480	-1.7390	-1.7100	-1.6750	-1.6220	.32900	.33200	.99800	.99980
.202	5.400	-1.7130	-1.6560	-1.7280	-1.6970	-1.6970	-1.6160	.33000	.33400	.99630	.99960
.202	10.600	-1.7060	-2.1870	-1.7220	-1.6970	-2.2280	-2.1460	.33500	.34600	.93850	.98880
.203	15.900	-1.6870	-2.8930	-1.6940	-1.6660	-3.1080	-2.6780	.33600	.34200	.99880	.96410
.203	19.100	-1.6830	-3.3460	-1.6960	-1.6770	-3.6490	-3.0520	.33700	.34600	.99920	.95140
GRADIENT	-.01526	.01316	-.01447	-.01579	-.01658	.03316	-.00053	-.00066	-.00105	-.00066	-.00003

REFERENCE DATA  
SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA  
BETA = .0000 GPP = 154.0000  
DE = .0000 DA = .0000  
X/L = .0000 LIP = 4.0000  
NBT = .0000 RD = 3.0000

RUN NO. 4077 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	HR16	PRT17	PRT18	PRT19
.201	-3.620	60.7650	.99980	.99980	.99930	.99870	.99670	.99750	.99880	.99910	.99980
.201	.200	60.8570	.99960	.99760	.99520	.99420	.99310	.99460	.99490	.99640	.99710
.202	5.400	61.2830	.99640	.99520	.99520	.99520	.99580	.99270	.99380	.99820	.99880
.202	10.600	61.5390	.99970	.99460	.99860	.99860	.99860	.99530	.99720	.99940	.99920
.203	15.900	62.2480	.99970	.99970	.99890	.99890	.99880	.99750	.99860	.99970	.99870
.203	19.100	62.2890	.99920	.99920	.99920	.99920	.99920	.99790	.99890	.99920	.99870
GRADIENT	.02421	-.00732	-.00058	-.00058	-.00108	-.00118	-.00795	-.00076	-.00103	-.00071	-.00039

## PARAMETRIC DATA

BETA	=	.0000	GDP	=	154.0000
CE	=	.0000	DA	=	.0000
X/L	=	.0000	LTP	=	4.0000
NET	=	.0000	RD	=	3.0000

SEEF	=	4.4119 INCHES	WARP	=	43.5974 INCHES
LEEF	=	19.2999 INCHES	YARP	=	17.7741 INCHES
BREF	=	37.9349 INCHES	ZARP	=	16.2741 INCHES
SCALE	=	1.1405			

GRADIENT INTERVAL =  $-5.00 / 5.00$

MACH	ALPHA	$\beta$	PR102	PR103	PR104	PR105	PR106	PR107	PR108	PR109
.201	-2.610	60.76500	.99990	.99980	.99990	.99980	1.00020	.99990	1.00000	1.00010
.204	.200	60.85000	.99970	.99970	.99970	.99970	1.00000	.99970	.99990	.99990
.207	.400	61.00000	.99950	.99950	.99960	.99950	.99980	.99950	.99970	.99970
.212	5.400	61.26000	.99930	.99930	.99960	.99940	.99980	.99940	.99970	.99670
.217	10.600	61.53000	.99880	.99880	.99960	.99940	.99970	.99970	.98420	.94910
.223	15.900	62.26000	.99790	.99790	.99900	.99890	.99950	.99920	.96110	.91070
.230	19.000	62.96000	.99750	.99750	.99930	.99920	.99950	.99950	.96000	.90900

(CONTINUED) ( 29 SEP 73 )

NE-771 CKB B16C507J2G12A7+CP

### PARAMETRIC DATA

BETA	=	.12%	GP	=	154,000
DE	=	.12%	DA	=	.12%
XL	=	.12%	LIP	=	4,000
NR	=	.12%	RU	=	3,000

SRF = 4.4119 SQ. FT. YARP = 43.5974 INCHES  
LRF = 19.2999 INCHES YARP = .0720 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2820 INCHES  
SCALE = .0405

CRABTENT INTERVAL = -5.107/ 5.107

DATE	ALPHA	$\beta$	WIM	WDM	QUM	QDM	WIC	WDC	MFRI	MFRO	WC
.201	-3.6(3)	61.775(3)	.426(3)	.433(3)	.426(3)	.427(3)	.384(3)	.389(3)	1.360(3)	1.383(3)	.287(3)
.201	-1.1(3)	61.953(3)	.426(3)	.432(3)	.425(3)	.428(3)	.382(3)	.389(3)	1.367(3)	1.385(3)	.281(3)
.202	5.4(3)	61.164(3)	.426(3)	.437(3)	.425(3)	.427(3)	.383(3)	.385(3)	1.366(3)	1.384(3)	.281(3)
.203	10.6(3)	61.742(3)	.434(3)	.423(3)	.432(3)	.424(3)	.388(3)	.396(3)	1.373(3)	1.403(3)	.282(3)
			-1.00(5)	.000(3)	-.000(2)	.000(2)	-.000(5)	.000(2)	-.000(3)	.000(3)	.000(2)



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TABULATED PROFLUSION SOURCE DATA NAAL-701

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NR-701 ORB 816C507J2612A87+CP

COMMODS ( 29 SEP 73 )

## REFERENCE DATA

BRF = 4.4119 80.FT. WARP = 43.9974 INCHES  
LRF = 19.2999 INCHES WARP = .0000 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2020 INCHES  
SCALE = .0405

RUN NO. 408/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	CP81	CP80	CP811	CP812	CP801	CP802	MIN	MON	PRT1	PRT0
.201	-3.800	-2.52200	-2.54370	-2.54800	-2.49900	-2.59100	-2.59100	.36400	.36800	.99840	1.00000
.201	.100	-2.56700	-2.56800	-2.59200	-2.54200	-2.52000	-2.61100	.36900	.36900	.99820	.99970
.202	5.400	-2.55900	-2.47100	-2.58400	-2.53400	-2.53200	-2.41100	.36400	.36900	.99840	.99970
.203	10.800	-2.56100	-3.04100	-2.58800	-2.53800	-3.02100	-3.02100	.36900	.40300	.99830	.99980
GRADIENT		-.01216	-.00622	-.01169	-.01270	-.00676	-.00541	-.00027	.00027	-.00039	-.00006

## REFERENCE DATA

BRF = 4.4119 80.FT. WARP = 43.9974 INCHES  
LRF = 19.2999 INCHES WARP = .0000 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2020 INCHES  
SCALE = .0405

RUN NO. 408/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	CP81	CP80	CP811	CP812	CP801	CP802	MIN	MON	PRT1	PRT0
.201	-3.800	60.77500	.99990	.99980	.99920	.99850	.99820	.99730	.99870	.99890	.99880
.201	.100	60.99600	.99980	.99980	.99930	.99430	.99300	.99480	.99510	.99660	.99740
.202	5.400	61.16400	.99940	.99560	.99510	.99330	.99600	.99280	.99370	.99830	.99970
.203	10.800	61.74200	.99980	.99890	.99840	.99850	.99840	.99490	.99730	.99930	.99910
GRADIENT		.04790	-.00730	-.00749	-.00105	-.00114	-.00246	-.00268	-.00297	-.00062	-.00032

NR-701 ORB 816C507J2612A87+CP

(EDM408) ( 29 SEP 73 )

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

NR-7J: ORG 210C507J261248706P

(FD-440) (29 SEP 73)

## REFERENCE DATA

BRDF = 4.4119 36.FT. WARP = 43.5974 INCHES  
URDF = 19.2999 INCHES WARP = .0070 INCHES  
GRDF = 37.9349 INCHES WARP = 18.2000 INCHES  
SCALE = .0405

RUN NO.	408	0	BVAL =	.20	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

## REFERENCE DATA

BR7 = 4.4119 INCHES  
 LB7 = 19.2949 INCHES  
 BR7 = 37.9349 INCHES  
 SCALE = .0405  
 WPP = 43.5974 INCHES  
 WPP = .0000 INCHES  
 ZWPP = 16.2000 INCHES

RUN NO.	CONC	REACT	GRADIENT	INTERVAL	TIME
1	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00
32	0.00	0.00	0.00	0.00	0.00
33	0.00	0.00	0.00	0.00	0.00
34	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00
37	0.00	0.00	0.00	0.00	0.00
38	0.00	0.00	0.00	0.00	0.00
39	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00
41	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00
46	0.00	0.00	0.00	0.00	0.00
47	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00
49	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00
56	0.00	0.00	0.00	0.00	0.00
57	0.00	0.00	0.00	0.00	0.00
58	0.00	0.00	0.00	0.00	0.00
59	0.00	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00	0.00
61	0.00	0.00	0.00	0.00	0.00
62	0.00	0.00	0.00	0.00	0.00

[illegible]





## DATE 05 DEC 73 TABULATED PROPELLSION SOURCE DATA NAAL-701

(DDMMDD) ( 29 SEP 73 )

NR-701 ORB B16C507J2G12A87+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 409/ 0 RVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CP81	CP80	CP811	CP812	CP804	CP802	MIN	MON	PRT1	PRT0
MACH	.000										
	-4.000	-.39200	-.39200	-.38900	-.39300	-.39300	-.39200	.15900	.16000	.99910	.99920
	-4.000	-.89600	-.89900	-.88900	-.90400	-.90200	-.89600	.24300	.24800	.99800	.99890
	-4.000	-1.52600	-1.54700	-1.51100	-1.54100	-1.54100	-1.54400	.31700	.32600	.99490	.99800
	-4.000	-2.09200	-2.14100	-2.08600	-2.09800	-2.10300	-2.17900	.37500	.38900	.99250	.99820
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

(EDMMDD) ( 29 SEP 73 )

NR-701 ORB B16C507J2G12A87+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 409/ 0 RVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
MACH	.000										
	-4.000	.00000	.99730	.99990	.99990	1.00000	.99960	.99990	.99990	.99990	.99900
	-4.000	.00000	.99310	.99990	.99990	1.00000	.99910	.99990	.99990	.99990	.99850
	-4.000	.00000	.98660	.99990	.99990	.99990	.99730	.99990	.99990	.99990	.99880
	-4.000	.00000	.98120	.99970	.99990	1.00000	.98290	.99990	.99990	.99990	.99990
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000









DATE 05 DEC 75

TABULATED PROPLUSION SOURCE DATA MALL-701

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NR-701 ORB B16C507J2612-874-GP

(FDM411) ( 29 SEP 75 )

REFERENCE DATA

SREF = 4.4119 80.FT. XGRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
XL = .000 LIP = 11.000  
NBT = .000 RD = 3.000

PARAMETRIC DATA

RUN NO. 411/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO8
.000	.000	.00000	.99990	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	.99990
.000	.000	.00000	.99990	.99990	1.00000	.99990	.99990	1.00000	.99990	.99990	1.00000
.000	.000	.00000	.99990	1.00000	1.00000	.99990	.99990	1.00000	.99990	.99990	.99780
.000	.000	.00000	.99990	1.00000	.99990	1.00000	.99990	.99990	.99990	.99990	.99940
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SREF = 4.4119 80.FT. XGRP = 43.9974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
XL = .000 LIP = 11.000  
NBT = .000 RD = 3.000

PARAMETRIC DATA

NR-701 ORB B16C507J2612-874-GP

(CDM412) ( 29 SEP 75 )

RUN NO. 412/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WM	WOM	QWTH	QWOM	WTC	WOC	MFRI	MFRO	WC
.116	.100	20.19500	.17900	.17900	.17800	.18000	.17300	.18100	1.22820	1.20510	.14100
.117	.100	20.36600	.26300	.26600	.26400	.26600	.25100	.26400	1.77120	1.68030	.14200
.116	.100	20.27000	.34800	.35000	.34900	.35100	.31900	.33300	2.25480	2.35580	.14100
.116	.100	20.18700	.41900	.42100	.42100	.42300	.36700	.38300	2.60170	2.71590	.14100
GRADIENT		256.00000	2.00000	2.00000	.00000	2.00000	2.00000	2.00000	16.00000	.00000	1.00000

DATE 05 DEC 75

(DDM412) ( 29 SEP 73 )

NR-701 ORB 816C507J2G12J87+GP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 11.000  
NBT = .000 RD = 3.000

REFERENCE DATA

SREF = 4.4119 98.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 412/ 0 R/V/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CP81	CP90	CP811	CP812	CP901	CP902	MIN	MON	PRT1	PRT0
.116	.100	-1.05400	-1.09900	-1.18700	-.92000	-1.12400	-1.07400	.16300	.17000	.99890	1.00030
.117	.100	-3.24200	-3.57200	-3.57300	-2.91100	-3.50300	-3.64100	.24000	.25300	.99900	1.00010
.118	.100	-6.00600	-6.57100	-6.59400	-5.41800	-6.48900	-6.65700	.31200	.32800	.99910	1.00020
.116	.100	-8.54600	-9.38300	-9.36500	-7.72700	-9.29700	-9.46900	.36800	.38700	.99920	1.00030
GRADIENT		-32.00000	.00000	.00000	-64.00000	.00000	.00000	4.00000	4.00000	8.00000	8.00000

(EDM412) ( 29 SEP 73 )

NR-701 ORB 816C507J2G12J87+GP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 11.000  
NBT = .000 RD = 3.000

REFERENCE DATA

SREF = 4.4119 98.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 412/ 0 R/V/L = .12 GRADIENT INTERVAL = 5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.116	.100	20.19500	.99990	.99950	.99860	.99830	.99800	.99840	.99860	.99910	.99930
.117	.100	20.38600	.99990	.99970	.99870	.99830	.99790	.99840	.99860	.99930	.99940
.118	.100	20.27000	1.00010	.99980	.99890	.99870	.99790	.99840	.99860	.99940	.99970
.116	.100	20.18700	1.00020	1.00000	.99890	.99840	.99800	.99850	.99880	.99960	.99980
GRADIENT		256.00000	.00000	.00000	8.00000	.00000	8.00000	8.00000	8.00000	8.00000	8.00000



NR-701 ORB 816C507J2G12A87+CP

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 11.000  
NBT = .000 RD = 3.000

RUN NO. 412/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.116	.100	20.19500	1.00020	1.00030	1.00020	1.00030	1.00020	1.00040	1.00020	1.00030	1.00030
.117	.100	20.36800	1.00010	1.00010	1.00010	1.00010	1.00010	1.00020	1.00010	1.00010	1.00020
.118	.100	20.27000	1.00020	1.00020	1.00020	1.00020	1.00020	1.00030	1.00020	1.00020	1.00020
.116	.100	20.16700	1.00030	1.00030	1.00030	1.00030	1.00030	1.00040	1.00030	1.00030	1.00030
GRADIENT	256.00000	16.00000	8.00000	16.00000	16.00000	8.00000	16.00000	16.00000	16.00000	8.00000	.00000

NR-701 ORB 816C507J2G12A87+CP

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 11.000  
NBT = .000 RD = 3.000

RUN NO. 413/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WTH	WOM	QWTH	QWOM	WIC	WOC	MFRI	MFRO	WC
.164	.100	40.65000	.18900	.19500	.18900	.19400	.18800	.19800	.94250	.99070	.20000
.164	.100	40.46000	.27500	.27900	.27400	.27800	.26300	.27700	1.32050	1.36870	.19900
.164	.100	40.41500	.35800	.35900	.35700	.35700	.32600	.34200	1.63780	1.71710	.19900
.164	.100	40.49300	.42500	.42900	.42400	.42700	.37200	.38900	1.86500	1.95170	.19900
GRADIENT	.00000	4.00000	4.00000	4.00000	4.00000	.00000	2.00000	4.00000	16.00000	16.00000	4.00000

NR-701 ORB B16C507J2G12M87+CP

(DDM413) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 11.000  
 NBT = .000 RD = 3.000

RUN NO. 413/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CPSI	CP90	CP511	CP51C	CP504	CP902	MIN	MON	PRT1	PRT0
.164	.100	-1.29800	-1.28500	-1.35900	-1.23700	-1.29700	-1.27400	.17600	.18500	.99700	.99950
.164	.100	-1.43800	-1.56100	-1.60300	-1.27200	-1.52300	-1.59900	.23100	.26500	.99700	.99960
.164	.100	-2.76800	-3.02500	-3.05400	-2.47800	-2.97300	-3.07600	.31900	.33500	.99740	.99970
.164	.100	-3.97700	-4.35900	-4.36700	-3.57300	-4.30000	-4.41800	.37100	.39100	.99740	.99960
GRADIENT		-16.00000	-16.00000	-16.00000	-16.00000	-16.00000	-16.00000	2.00000	4.00000	8.00000	16.00000

NR-701 ORB B16C507J2G12M87+CP

(EDM413) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 11.000  
 NBT = .000 RD = 3.000

RUN NO. 413/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	.100	40.65000	.99850	.99800	.99660	.99600	.99530	.99630	.99650	.99730	.99740
.164	.100	40.46000	.99970	.99840	.99670	.99610	.99540	.99630	.99650	.99760	.99790
.164	.100	40.41500	.99920	.99860	.99680	.99610	.99530	.99630	.99660	.99780	.99820
.164	.100	40.49300	.99920	.99860	.99670	.99600	.99530	.99610	.99650	.99790	.99830
GRADIENT		.00000	8.00000	8.00000	8.00000	8.00000	8.00000	8.00000	8.00000	16.00000	16.00000





NR-701 ORB B16C507J2G12J67+CP

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 413/ 0 RVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LTP = 11.000  
NBT = .000 RD = 3.000

WACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.164	.100	40.65000	.99940	.99940	.99940	.99950	.99940	.99960	.99940	.99960	.99960
.164	.100	40.46000	.99960	.99960	.99960	.99960	.99960	.99960	.99960	.99970	.99970
.164	.100	40.41500	.99970	.99970	.99970	.99970	.99970	.99990	.99970	.99980	.99980
.164	.100	40.49300	.99960	.99960	.99960	.99960	.99960	.99960	.99960	.99970	.99970
GRADIENT		.00000	8.00000	8.00000	8.00000	16.00000	8.00000	.00000	8.00000	8.00000	8.00000

NR-701 ORB B16C507J2G12J67+CP

(CD4414) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 414/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LTP = 11.000  
NBT = .000 RD = 3.000

WACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFRI	MFRO	MC
.201	.200	60.70500	.20400	.21300	.20300	.21000	.20500	.21700	.84100	.89180	.24400
.201	.200	60.72800	.26300	.29100	.28100	.28800	.27200	.28900	1.00000	1.18610	.24300
.201	.200	60.73200	.36300	.36900	.36000	.36600	.33400	.35300	1.00000	1.44780	.24300
.201	.200	60.70400	.42900	.43400	.42600	.43000	.37600	.39600	1.54690	1.62310	.24300
GRADIENT		256.00000	2.00000	.00000	.00000	.00000	2.00000	2.00000	4.00000	8.00000	1.00000

NR-701 ORB B16C507J2G12J87+GP (EDM414) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 88 FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 11.000  
 NBT = .000 RD = 3.000

RUN NO. 414/ 0 RNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPSI	CPSO	CPS11	CPS12	CPSO1	CPSO2	MON	PRT1	PRT0
.201	.200	-0.04870	-0.01800	-0.03400	-0.00800	-0.02300	-0.01300	.20200	.99600	.99990
.201	.200	-0.76300	-0.84500	-0.87000	-0.85500	-0.81600	-0.87300	.27500	.99620	.99990
.201	.200	-1.66500	-1.83800	-1.85300	-1.47700	-1.79800	-1.87900	.34500	.99630	.99990
.201	.200	-2.43100	-2.67700	-2.68900	-2.17200	-2.63200	-2.72200	.39500	.99640	.99990
		GRADIENT	-4.00000	.00000	-4.00000	-8.00000	.00000	.00000	.00000	8.00000

## REFERENCE DATA

SRF = 4.4119 88 FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 11.000  
 NBT = .000 RD = 3.000

NR-701 ORB B16C507J2G12J87+GP (EDM414) ( 29 SEP 73 )

RUN NO. 414/ 0 RNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPSI	CPSO	CPS11	CPS12	CPSO1	CPSO2	MON	PRT1	PRT0
.201	.200	60.70800	.99820	.99750	.99550	.99470	.99360	.99340	.99620	.99640
.201	.200	60.72800	.99870	.99790	.99580	.99450	.99340	.99540	.99660	.99700
.201	.200	60.73200	.99880	.99820	.99540	.99440	.99330	.99530	.99670	.99750
.201	.200	60.70400	.99970	.99820	.99550	.99440	.99330	.99520	.99680	.99750
		GRADIENT	256.00000	.00000	8.00000	.00000	.00000	4.00000	8.00000	.00000

DATE 05 DEC 73

TABULATED PROPUSSION SOURCE DATA NAAL-701

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NR-701 OGB B16C507J2G12A074CP

(FD-414) (29 SEP 73)

## REFERENCE DATA

SRY = 4.4119 80.FT. WPP = 43.5974 INCHES  
 URY = 19.2990 INCHES WPP = .0000 INCHES  
 GR3 = 37.9349 INCHES ZPP = 16.2000 INCHES  
 SCALE = .0405

BETA	=	.000	GPP	=	154,000
DE	=	.000	DA	=	.000
Y/L	=	.000	LIP	=	11,000
NET	=	.000	RD	=	3,000

RUN NO. 414/0 RUNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

	MACH	ALPHA	$\theta$	PRT04	PRT02	PRT05	PRT04	PRT05	PRT07	PRT08	PRT09
	.201	.200	60.70500	.99980	.99980	.99980	.99990	.99980	.99980	1.00000	1.00000
	.201	.200	60.78600	.99990	.99990	.99980	.99990	.99980	.99990	1.00010	1.00010
	.201	.200	60.73200	.99990	.99990	.99980	.99990	.99980	.99990	1.00010	1.00010
	.201	.200	60.70400	.99980	.99990	.99980	.99990	.99980	.99980	1.00000	1.00000
GRADIENT	.201	.200	236.00000	.00000	.4.00000	.00000	0.00000	.00000	.00000	4.00000	4.00000

NR-70; ORB B16C507J3C12A87+CP

(CDN415) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.119 SQ. FT. XRP = 43.5974 INCHES  
LRF = 19.2999 INCHES YRP = .0000 INCHES  
BRF = 37.9349 INCHES ZRP = 16.2000 INCHES  
SCALE = .0405

BETA	=	.0000	GPP	=	154.0000
DE	=	.0000	DA	=	.0000
X/L	=	.0000	LIP	=	4.0000
NGT	=	5.0000	RD	=	2.0000

RUN NO.	415/ [ ]	RVAL = .00	GRADIENT INTERVAL = -5.00/ 5.00
1	1.00	1.00	1.00
2	2.00	2.00	2.00
3	3.00	3.00	3.00
4	4.00	4.00	4.00
5	5.00	5.00	5.00
6	6.00	6.00	6.00
7	7.00	7.00	7.00
8	8.00	8.00	8.00
9	9.00	9.00	9.00
10	10.00	10.00	10.00
11	11.00	11.00	11.00
12	12.00	12.00	12.00
13	13.00	13.00	13.00
14	14.00	14.00	14.00
15	15.00	15.00	15.00
16	16.00	16.00	16.00
17	17.00	17.00	17.00
18	18.00	18.00	18.00
19	19.00	19.00	19.00
20	20.00	20.00	20.00
21	21.00	21.00	21.00
22	22.00	22.00	22.00
23	23.00	23.00	23.00
24	24.00	24.00	24.00
25	25.00	25.00	25.00
26	26.00	26.00	26.00
27	27.00	27.00	27.00
28	28.00	28.00	28.00
29	29.00	29.00	29.00
30	30.00	30.00	30.00
31	31.00	31.00	31.00
32	32.00	32.00	32.00
33	33.00	33.00	33.00
34	34.00	34.00	34.00
35	35.00	35.00	35.00
36	36.00	36.00	36.00
37	37.00	37.00	37.00
38	38.00	38.00	38.00
39	39.00	39.00	39.00
40	40.00	40.00	40.00
41	41.00	41.00	41.00
42	42.00	42.00	42.00
43	43.00	43.00	43.00
44	44.00	44.00	44.00
45	45.00	45.00	45.00
46	46.00	46.00	46.00
47	47.00	47.00	47.00
48	48.00	48.00	48.00
49	49.00	49.00	49.00
50	50.00	50.00	50.00
51	51.00	51.00	51.00
52	52.00	52.00	52.00
53	53.00	53.00	53.00
54	54.00	54.00	54.00
55	55.00	55.00	55.00
56	56.00	56.00	56.00
57	57.00	57.00	57.00
58	58.00	58.00	58.00
59	59.00	59.00	59.00
60	60.00	60.00	60.00
61	61.00	61.00	61.00
62	62.00	62.00	62.00
63	63.00	63.00	63.00
64	64.00	64.00	64.00
65	65.00	65.00	65.00
66	66.00	66.00	66.00
67	67.00	67.00	67.00
68	68.00	68.00	68.00
69	69.00	69.00	69.00
70	70.00	70.00	70.00
71	71.00	71.00	71.00
72	72.00	72.00	72.00
73	73.00	73.00	73.00
74	74.00	74.00	74.00
75	75.00	75.00	75.00
76	76.00	76.00	76.00
77	77.00	77.00	77.00
78	78.00	78.00	78.00
79	79.00	79.00	79.00
80	80.00	80.00	80.00
81	81.00	81.00	81.00
82	82.00	82.00	82.00
83	83.00	83.00	83.00
84	84.00	84.00	84.00
85	85.00		

MACH	ALPHA	Q	WM	WOM	CMIM	QCMH	WTC	NOC	MFRT	MFRO	MC
.000	.000	.00000	.16000	.16000	.16000	.16000	.17200	.17000	.17260	.17070	.00000
.000	.000	.00000	.16000	.16000	.16000	.16000	.17100	.17000	.17180	.17090	.00000
.000	5.000	.00000	.16000	.16000	.16000	.16000	.17100	.17000	.17170	.17000	.00000
.000	9.900	.00000	.16000	.16000	.16000	.16000	.17000	.17000	.17230	.17050	.00000
.000	14.900	.00000	.16000	.16000	.16000	.16000	.17000	.17000	.17200	.17050	.00000
.000	17.900	.00000	.16000	.16000	.16000	.16000	.17200	.17000	.17200	.17000	.00000
GRADIENT		.00000	.00000	.00000	.00000	.00000	-.00000	.00000	-.00016	.00004	.00000









NR-701 ORB B16C507J3G124874GP

REFERENCE DATA  
SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA  
BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 416/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.000	-3.500	.00000	.99790	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	.000	.00000	.99980	1.00000	1.00000	.99990	.99980	.99980	.99980	.99990	.99990
.000	4.900	.00000	.99990	.99990	.99990	.99990	.99990	.99980	.99990	.99990	.99990
.000	9.900	.00000	.99990	1.00000	.99990	.99990	.99990	.99980	1.00000	.99990	.99990
.000	14.900	.00000	.99990	1.00000	.99990	.99990	.99990	.99990	1.00000	.99990	.99990
.000	17.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	GRADIENT	.00000	.00022	-.00000	-.00000	.00000	-.00000	-.00000	.00000	.00000	.00000

NR-701 ORB B16C507J3G124874GP

REFERENCE DATA  
SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA  
BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 417/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFRI	MFRO	WC
.000	-3.500	.00000	.34100	.33900	.34400	.34300	.32600	.32200	.32600	.32200	.00000
.000	.000	.00000	.34000	.33800	.34400	.34200	.32700	.32300	.32700	.32300	.00000
.000	4.900	.00000	.33900	.33700	.34300	.34200	.32600	.32400	.32600	.32400	.00000
.000	9.900	.00000	.34000	.33900	.34400	.34200	.32600	.32300	.32600	.32300	.00000
.000	14.900	.00000	.33800	.33700	.34200	.34000	.32500	.32200	.32500	.32200	.00000
.000	17.900	.00000	.33900	.33700	.34200	.34100	.32500	.32300	.32500	.32300	.00000
.000	GRADIENT	.00000	-.00024	-.00011	-.00012	-.00011	-.00001	.00024	.00004	.00016	.00000

NR-701 ORB B16C507J3G12487+CP

(DDM417) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 417/ 0 RNVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPSI1	CPSI2	CPSO1	CPSO2	MIN	MON	PRT1	PRT0
.000	-3.500	-1.47800	-1.44900	-1.47100	-1.48500	-1.46900	-1.42900	.32300	.31900	.99990	.99960
.000	.000	-1.48300	-1.45300	-1.48100	-1.48600	-1.47500	-1.43200	.32300	.32000	.99990	.99990
.000	4.900	-1.48100	-1.45500	-1.47800	-1.48400	-1.47600	-1.43400	.32300	.32000	.99990	.99990
.000	9.900	-1.48200	-1.45300	-1.48000	-1.48400	-1.47200	-1.43500	.32300	.32000	.99990	.99990
.000	14.900	-1.47100	-1.44100	-1.47000	-1.47200	-1.45800	-1.42300	.32200	.31900	.99970	.99990
.000	17.900	-1.47100	-1.44500	-1.47000	-1.47300	-1.46300	-1.42800	.32200	.31900	.99990	.99990
GRADIENT	-.00031	-.00069	-.00074	.00014	-.00079	-.00058	.00000	.00000	.00011	.00000	.00003

NR-701 ORB B16C507J3G12487+CP

(EDM417) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 417/ 0 RNVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.000	-3.500	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99970
.000	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	4.900	.00000	.99990	.99990	.99990	1.00000	.99990	.99990	.99990	.99990	.99990
.000	9.900	.00000	.99990	.99990	.99990	1.00000	.99990	.99990	.99990	.99990	.99990
.000	14.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	17.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99960
GRADIENT	.00000	.00000	.00000	.00000	.00000	.00001	.00000	.00000	.00000	.00000	.00002





NR-701 ORB B16C507J3G124874CP

REFERENCE DATA

SREF = 4.4119 80.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 417/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.000	-3.500	.00000	.99830	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	4.900	.00000	.99990	.99990	1.00000	.99990	.99990	.99990	.99990	1.00000	.99990
.000	9.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	14.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
.000	17.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
GRADIENT	.00000	.00000	.00018	.00000	.00000	.00000	.00000	.00000	.00000	.00001	.00000

NR-701 ORB B16C507J3G124874CP

(CDN418) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 80.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 418/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MERI	MERO	VC
.000	-3.500	.00000	.41200	.41100	.41600	.41500	.37800	.37500	.37860	.37590	.00000
.000	.000	.00000	.41300	.41200	.41700	.41600	.37800	.37500	.37860	.37550	.00000
.000	4.900	.00000	.41200	.41100	.41600	.41500	.37800	.37500	.37810	.37600	.00000
.000	9.900	.00000	.41100	.41000	.41500	.41400	.37700	.37500	.37750	.37540	.00000
.000	14.900	.00000	.41200	.41100	.41600	.41500	.37800	.37500	.37810	.37550	.00000
.000	17.900	.00000	.41200	.41100	.41600	.41500	.37800	.37500	.37840	.37530	.00000
GRADIENT	.00000	.00000	-.00001	-.00001	.00011	.00011	.00000	.00012	-.00006	.00002	.00000

TABULATED PROPULSION SOURCE DATA NAL-701

DATE 05 DEC 75

(DDM418) ( 29 SEP 75 )

NR-701 ORB B16C507J3G12A874CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

REFERENCE DATA

SRDF = 4.4119 50.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 418/ 0 RNVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
MACH	.000	-3.500	-2.05300	-2.04900	-2.05600	-2.04700	-1.99400	.38400	.38100	.99990	.99990
	.000	.000	-2.05300	-2.05100	-2.05500	-2.04400	-1.99000	.38400	.38000	.99990	.99980
	.000	4.900	-2.04800	-2.04600	-2.05000	-2.04700	-1.99500	.38400	.38100	.99990	.99990
	.000	9.900	-2.04000	-2.01400	-2.03800	-2.04200	-1.98600	.38300	.38000	.99990	.99990
	.000	14.900	-2.04900	-2.05400	-2.04400	-2.04400	-1.99700	.38400	.38100	.99990	.99990
	.000	17.900	-2.05100	-2.01300	-2.05000	-2.03900	-1.98800	.38400	.38000	.99990	.99990
GRADIENT	.0000	.00062	-.00016	.00040	.00073	-.00004	-.00018	-.00000	.00001	.00000	.00000

(DDM418) ( 29 SEP 75 )

NR-701 ORB B16C507J3G12A874CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

REFERENCE DATA

SRDF = 4.4119 50.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 418/ 0 RNVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
MACH	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
	.000	.00000	.99990	.99990	1.00000	.99990	.99990	.99990	1.00000	.99990	.99990
	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
GRADIENT	.0000	.00000	.00000	.00000	-.00000	.00000	.00000	.00000	-.00000	.00000	.00000

WA-751 0000 010050713612007000

(FD-418) (29 SEP 73)

## REFERENCE DATA

9997 = 4,4119 99,97. 9999 = 43,9974 100-E3  
 9997 = 19,9999 100-E3 9999 = .9999 100-E3  
 9997 = 37,9249 100-E3 9999 = 18,2000 100-E3  
 SCALE = .0005

BETA	=	.000	QAP	=	154.000
DE	=	.000	DA	=	.000
V/L	=	.000	LIP	=	4.000
NET	=	5.000	EO	=	2.000

PGM NO. 418/3       $\text{EWL} = .25$       GRADIENT INTERVAL = -5.05/5.05

[illegible]

**W. V. DODGE**

SPR = 4.415 90.57. 000 = 42.9974 100.53  
LPR = 19.2999 100.53 000 = 100.000 100.53  
BPR = 17.9245 100.53 200 = 16.200 100.53  
SCALE = 100.53

85	=	500	25	=	12,500
86	=	500	24	=	12,000
87	=	500	23	=	11,500
88	=	500	22	=	11,000

2004年12月25日

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[illegible]

NR-701 ORB B16C507J3G12A87+GP

(EDM424) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 424/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPHI	CPBO	CPSI1	CPSI2	CPSO1	CPSO2	MON	PRT1	PRT0
.164	-3.500	-3.5500	-2.6800	-3.5400	-3.5700	-2.9500	-2.4200	.18400	.99790	.99970
.164	.100	-3.9800	-2.2600	-3.9200	-4.0400	-3.0200	-2.3200	.18400	.99640	.99960
.164	5.300	-3.8000	-2.5500	-3.7500	-3.8500	-3.0900	-2.0000	.18300	.99710	.99950
.165	10.500	-3.1700	-2.2500	-3.1200	-3.2100	-3.0100	-2.0200	.18400	.99880	.99960
.166	15.700	-3.0400	-3.1700	-3.0200	-3.0800	-3.7600	-2.5800	.18900	.99920	.99940
.166	18.900	-3.4400	-1.4740	-3.4000	-3.4700	-1.69400	-1.25500	.16100	.99920	.97010
GRADIENT		-.01194	.00028	-.01056	-.01306	-.00194	.00028	-.00000	-.00042	-.00003

NR-701 ORB B16C507J3G12A87+GP

(EDM424) ( 29 SEP 73 )

## REFERENCE DATA

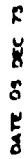
SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 424/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPHI	CPBO	CPSI1	CPSI2	CPSO1	CPSO2	MON	PRT1	PRT0
.164	-3.500	40.25300	.99930	.99910	.99820	.99760	.99630	.99810	.99790	.99780
.164	.100	40.51100	.99760	.99700	.99580	.99550	.99510	.99560	.99660	.99720
.164	5.300	40.49500	.99660	.99650	.99630	.99660	.99690	.99570	.99830	.99890
.165	10.500	40.95000	.99880	.99880	.99880	.99870	.99870	.99800	.99940	.99950
.166	15.700	41.12100	.99930	.99930	.99920	.99920	.99910	.99900	.99930	.99930
.166	18.900	41.26100	.99930	.99930	.99920	.99920	.99920	.99910	.99930	.99930
GRADIENT		.07167	-.00047	-.00058	-.00067	-.00058	-.00033	-.00069	-.00036	-.00017



TABULATED PROPULSION SOURCE DATA MAAL-731

**PAGE 103**

(FD-24) (29 SEP 73)

WP-751 CPB B16C507J36124070CP

## REFERENCE DATA

BRDF = 4.411E-07 FT. 2000 = 43.5974 INCHES  
 LBDF = 19.2000 INCHES 2000 = .0000 INCHES  
 BRDF = 37.9249 INCHES 2000 = 18.2000 INCHES  
 SCALE = .5425

BETA	=	.000	GAP	=	134.000
DE	=	.000	DA	=	.000
X/L	=	.000	L/P	=	4.000
NGT	=	5.000	RD	=	2.000

RUN NO. 424/5     $R_{NL} = .16$     GRADIENT INTERVAL = -5.05/ 5.05

MACH	ALPHA	$\theta$	PR101	PR102	PR103	PR104	PR105	PR106	PR107	PR108	PR109
.164	-3.970	40.25300	.99960	.99960	.99980	.99960	.99960	.99980	.99960	.99970	.99970
.164	.170	40.81100	.99960	.99960	.99960	.99960	.99950	.99970	.99960	.99970	.99970
.164	5.370	40.49300	.99950	.99940	.99940	.99950	.99940	.99960	.99940	.99960	.99960
.165	10.970	40.95700	.99950	.99960	.99960	.99950	.99950	.99960	.99950	.99970	.99970
.166	18.970	41.12100	.99940	.99940	.99940	.99940	.99930	.99960	.99930	.99950	.99950
.166	18.970	41.26100	.99940	.99940	.99940	.99950	.99930	.99940	.99750	.99750	.99750
GRADIENT		17.167	.99970	.99960	.99960	.99970	.99970	.99970	.99970	.99970	.99970

18-71 050 2:60 07:35:28 7408

(C) 25 (25 53 73 )

**VIA FEDERAL**

BRDF = 4.419 SQ. FT. APP = 43,9974 INCHES  
 LWRD = 19.2599 INCHES APP = 5775 INCHES  
 BRDF = 37.9249 INCHES APP = 16,200 INCHES  
 SCALE = 1.545

BEA	=	1,000	000	=	134,000
DE	=	1,000	500	=	1,000
FL	=	1,000	110	=	4,000
IST	=	3,000	000	=	2,000

P31 NO. 423/0 PAUL = .16 GRADIENT INTERVAL = -3.00/ 3.00

[illegible]

NF-701 ORB B16C507J3G12A87+GP

(EDM425) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES BETA = .000 CPP = 154.000  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES DE = .000 DA = .000  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES X/L = .000 L/P = 4.000  
 SCALE = .0405 NBT = 5.000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 425/ 0 R/V/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CPS1	CFS0	CPS11	CPS12	CPS04	CPS02	WJN	PRT1	PRT0
.163	-3.500	-1.60600	-1.48100	-1.60000	-1.61200	-1.52500	-1.43600	.26100	.99780	.99980
.164	.100	-1.62400	-1.46400	-1.61300	-1.63400	-1.51400	-1.41300	.26000	.99670	.99970
.165	5.300	-1.59300	-1.44600	-1.58300	-1.60300	-1.50700	-1.38500	.26000	.99720	.99960
.166	10.500	-1.51100	-1.41800	-1.51100	-1.52700	-1.49400	-1.34100	.25900	.99850	.99950
.166	15.700	-1.49200	-1.43500	-1.48500	-1.49900	-1.53700	-1.33300	.26000	.99910	.99940
.166	18.900	-1.43900	-1.50200	-1.48100	-1.50800	-1.37900	.26300	.26400	.99920	.99940
GRADIENT	.12306	.00472	.00472	.00661	.00661	.00306	.00639	-.00028	-.00031	-.00003

NF-701 ORB B16C507J3G12A87+GP

(EDM425) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES BETA = .000 CPP = 154.000  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES DE = .000 DA = .000  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES X/L = .000 L/P = 4.000  
 SCALE = .0405 NBT = 5.000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 425/ 0 R/V/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.163	-3.500	40.00200	.99950	.99930	.99820	.99740	.99580	.99730	.99870	.99790	.99790
.164	.100	40.44500	.99810	.99720	.99580	.99540	.99510	.99530	.99550	.99690	.99770
.165	5.300	40.61300	.99690	.99660	.99650	.99660	.99700	.99460	.99550	.99850	.99910
.166	10.500	41.10400	.99860	.99860	.99850	.99850	.99850	.99820	.99750	.99930	.99940
.166	15.700	41.36600	.99930	.99930	.99920	.99920	.99910	.99790	.99880	.99930	.99930
.166	18.900	41.31000	.99940	.99940	.99930	.99930	.99930	.99810	.99970	.99940	.99930
GRADIENT	.12306	-.00039	-.00058	-.00058	-.00067	-.00056	-.00019	-.00056	-.00069	-.00028	-.00006

STABULATED PROFLSION SOURCE DATA MAAL-701

98-771 CRM B16C507J36124874CP

### REFERENCE DATA

DEPTH =	4,411.80 FT.	WARP =	43,5974 INCHES
=		WARP =	.0000 INCHES
=	19,2999 INCHES	ZARP =	16,2070 INCHES
=	37,9349 INCHES		
SCALE =	.0405		

### PARAMETRIC DATA

BETA	=	.001	GP	=	154.000
DE	=	.000	DA	=	.000
K/L	=	.000	LTP	=	4.000
NBY	=	5.000	RD	=	2.000

PROGRAM NO.	42% O	RNL =	.16	GRADIENT INTERVAL =	-5.00/	5.00
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NAME	ALPHA	Q	PR101	PR102	PR103	PR104	PR105	PR106	PR107	PR108	PR109
1.63	-3.500	45.00200	.99980	.99980	.99980	.99980	1.00070	.99980	.99980	.99990	.99990
1.64	1.00	45.44500	.99980	.99980	.99980	.99970	.99980	.99980	.99980	.99980	.99970
1.65	5.300	45.61300	.99950	.99950	.99950	.99980	.99950	.99950	.99950	.99980	.99960
1.66	10.500	41.10400	.99940	.99940	.99940	.99950	.99940	.99960	.99940	.99950	.99950
1.66	15.700	41.36800	.99950	.99940	.99930	.99940	.99950	.99950	.99930	.99950	.99950
1.66	18.900	41.31000	.99940	.99940	.99940	.99940	.99940	.99960	.99940	.99950	.99950
	GRADIENT	.12976	-.00006	-.00006	-.00006	-.00003	-.00006	-.00006	-.00006	-.00003	-.00006

REFERENCE DATA

SPR3	=	4.4119	NO-ET	SPR2	=	43.5974	NO-ES
UPR5	=	19.2999	NO-ES	UPR3	=	1.0000	NO-ES
SPR5	=	37.9349	NO-ES	SPR4	=	16.2102	NO-ES
SCALE	=		NO-ES				

### PARAMETRIC DATA

BETA	=	.000	COP	=	154.0000
DE	=	.000	DA	=	.0000
X/L	=	.000	LTP	=	4.0000
NPT	=	5.0000	RD	=	2.0000

$\Delta \text{E} = -16$  GRADIENT INTERVAL = -5.00/ 5.00

WOM	ALPHA	Q	WFM	WDM	QWFM	QWDM	WTC	WDC	WFR1	WFR0	WC
.164	-3.500	40.12970	.35700	.35670	.35700	.35970	.34000	.33800	1.71370	1.70380	.19807
.164	.110	40.35670	.35700	.35670	.35670	.35670	.33900	.33800	1.70560	1.70040	.19900
.165	5.300	40.75980	.35700	.35700	.35470	.35670	.33900	.33700	1.69570	1.68590	.20000
.165	10.500	40.96800	.35670	.35670	.35670	.35670	.34200	.33900	1.70760	1.69160	.20070
.166	15.700	41.12620	.35670	.35470	.35700	.35570	.34100	.33900	1.69540	1.68330	.20100
.166	18.970	41.27970	.35900	.35670	.35670	.35570	.34200	.34200	1.70760	1.69560	.20100
.166	22.000	41.53000	.35700	.35700	.35720	.35720	.34200	.33700	1.70225	1.68794	.20028

NR-701 ORB B16C507J3612467+CP

(DDM426) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 426/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.164	-3.500	-3.10900	-2.95000	-3.17900	-3.12200	-3.01300	-2.88800	.33400	.33100	.99800	.99900
.164	.100	-3.13200	-2.94300	-3.11400	-3.14900	-3.01200	-2.87400	.33400	.33200	.99690	.99970
.165	5.300	-3.06200	-2.88100	-3.04400	-3.07900	-2.95800	-2.80300	.33400	.33100	.99730	.99950
.165	10.900	-3.04300	-2.81100	-3.03000	-3.05600	-2.93200	-2.82100	.33700	.33300	.99860	.99960
.166	15.700	-2.96800	-2.89200	-2.95500	-2.98100	-3.07700	-2.78300	.33200	.33200	.99890	.99920
.166	18.900	-2.98100	-2.94900	-2.96800	-2.99500	-3.07900	-2.81900	.33600	.33500	.99910	.99940
GRADIENT	-.07639	.00194	-.07472	-.07750	.00028	.00389	.00000	.00000	.00028	-.00031	-.00003

NR-701 ORB B16C507J3612467+CP

(EDM426) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 426/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.500	40.12300	.99970	.99950	.99840	.99750	.99580	.99720	.99820	.99820	.99830
.164	.100	40.30800	.99850	.99770	.99680	.99550	.99510	.99540	.99570	.99710	.99820
.165	5.300	40.79800	.99720	.99670	.99650	.99660	.99710	.99430	.99540	.99870	.99920
.165	10.900	40.96800	.99880	.99870	.99860	.99870	.99870	.99580	.99740	.99940	.99950
.166	15.700	41.26200	.99910	.99910	.99920	.99900	.99890	.99730	.99850	.99920	.99910
.166	18.900	41.27900	.99930	.99930	.99920	.99920	.99920	.99780	.99890	.99930	.99930
GRADIENT	.05139	-.00033	-.00067	-.00050	-.00056	-.00014	-.00014	-.00050	-.00069	-.00031	-.00008



DATE 01 DEC 73

TABULATED PROPULSION SOURCE DATA NAL-701

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NR-701 ORB B16C507J3C12W7+CP

(F0M426) ( 29 SEP 73 )

## REFERENCE DATA

BRF = 4.4119 98.FT. WARP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRJ = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 XL = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 426/ 0 RNVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOM	ALPHA	Q	PRTOA	PRTO2	PRTOB	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.164	-3.300	40.12300	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980
.164	.100	40.30800	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980
.165	5.300	40.79800	.99950	.99950	.99950	.99950	.99950	.99950	.99950	.99950	.99950
.165	10.500	40.96800	.99950	.99950	.99950	.99950	.99950	.99950	.99950	.99950	.99950
.166	15.700	41.26200	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920	.99920
.166	18.900	41.27900	.99930	.99930	.99930	.99930	.99930	.99930	.99930	.99930	.99930
GRADIENT	.05139		-.00006	-.00006	-.00006	-.00003	-.00006	-.00006	-.00006	-.00003	-.00006

## REFERENCE DATA

BRF = 4.4119 98.FT. WARP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRJ = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 XL = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

NR-701 ORB B16C507J3C12W7+CP

(COM427) ( 29 SEP 73 )

RUN NO. 427/ 0 RNVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOM	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFRI	MFRO	WC
.164	-3.300	40.33800	.42800	.43000	.42700	.42800	.38900	.38600	1.95230	1.94070	.19900
.164	.100	40.38400	.42700	.42900	.42700	.42800	.38900	.38600	1.95170	1.94070	.19900
.164	5.300	40.53400	.42800	.43000	.42700	.42800	.38900	.38600	1.94980	1.93630	.19900
.165	10.500	40.65000	.42900	.42900	.42900	.42800	.39100	.38700	1.95030	1.93290	.20000
.166	15.700	41.43700	.43000	.42800	.42700	.42700	.39100	.38800	1.93720	1.92660	.20100
.166	18.900	41.13700	.42900	.42600	.42700	.42500	.39100	.39000	1.94460	1.93990	.20100
GRADIENT	.01278		-.00028	-.00028	-.00000	-.00000	-.00000	-.00000	-.00017	-.00019	-.00000

NR-701 ORB B16C507J3G12A87+CP

(DDM427) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 50 FT. YARP = 43.5974 INCHES  
 LRF = 19.2999 INCHES YARP = .0000 INCHES  
 BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 427/ 0 RVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CP51	CP50	CP511	CP512	CP501	CP502	MIN	MON	PRT1	PRT0
.164	-3.500	-4.46400	-4.27400	-4.44500	-4.48300	-4.35100	-4.19800	.39100	.38800	.99700	.99990
.164	.100	-4.51700	-4.28400	-4.49200	-4.54300	-4.36700	-4.20100	.39200	.38800	.99700	.99970
.164	5.300	-4.49300	-4.27800	-4.46900	-4.51700	-4.37100	-4.18100	.39200	.38800	.99720	.99950
.165	10.500	-4.43200	-4.26800	-4.41300	-4.45200	-4.37500	-4.15800	.39400	.38900	.99840	.99940
.166	15.700	-4.31500	-4.22700	-4.29500	-4.33400	-4.35500	-4.09900	.39300	.39100	.99910	.99950
.166	18.800	-4.36100	-4.31800	-4.34200	-4.38100	-4.46500	-4.17700	.39400	.39200	.99970	.99930
GRADIENT	-.01472	-.01278	-.01306	-.01667	-.01444	-.01783	-.02028	-.02028	-.02000	-.02025	-.02006

## REFERENCE DATA

SRF = 4.4119 50 FT. YARP = 43.5974 INCHES  
 LRF = 19.2999 INCHES YARP = .0000 INCHES  
 BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

NR-701 ORB B16C507J3G12A87+CP

(EDM427) ( 29 SEP 73 )

RUN NO. 427/ 1 RVL = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.500	40.33800	.99970	.99960	.99840	.99740	.99530	.99710	.99820	.99820	.99840
.164	.100	40.33800	.99970	.99960	.99840	.99740	.99530	.99710	.99820	.99820	.99840
.164	5.300	40.33400	.99970	.99960	.99840	.99740	.99530	.99710	.99820	.99820	.99840
.165	10.500	40.85000	.99970	.99960	.99840	.99740	.99530	.99710	.99820	.99820	.99840
.166	15.700	41.43700	.99940	.99930	.99840	.99740	.99530	.99710	.99820	.99820	.99840
.166	18.800	41.13700	.99920	.99920	.99840	.99740	.99530	.99710	.99820	.99820	.99840
GRADIENT	.01278	-.01128	-.01047	-.01047	-.01067	-.01056	-.01038	-.01047	-.01069	-.01022	-.01003



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TABULATED PROPULSION SOURCE DATA NAL-701

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NR-701 ORB B16C507J3612A874CP

(PDMA27) ( 29 SEP 75 )

REFERENCE DATA

BRDF = 4.4119 88.FT. WARP = 43.5974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 134.000  
DE = .000 DA = .000  
XL = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 427/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.164	-3.500	40.33600	.99980	.99980	.99980	.99990	.99980	.99980	.99980	1.00000	1.00000
.164	.100	40.30400	.99980	.99980	.99980	.99970	.99980	.99980	.99980	.99970	.99980
.164	5.300	40.33400	.99940	.99940	.99940	.99950	.99940	.99940	.99940	.99950	.99950
.165	10.500	40.89700	.99930	.99930	.99930	.99930	.99930	.99930	.99930	.99940	.99940
.166	15.700	41.43700	.99940	.99930	.99940	.99950	.99940	.99940	.99950	.99960	.99960
.166	16.800	41.13700	.99920	.99920	.99920	.99930	.99920	.99940	.99920	.99940	.99940
GRADIENT	.01276		-.00006	-.00008	-.00006	-.00006	-.00006	-.00006	-.00006	-.00008	-.00006

REFERENCE DATA

BRDF = 4.4119 88.FT. WARP = 43.5974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 134.000  
DE = .000 DA = .000  
XL = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

NR-701 ORB B16C507J3612A874CP

(COM426) ( 29 SEP 75 )

RUN NO. 428/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	W/M	W/M	Q/M	Q/M	W/C	W/C	W/FI	W/FI	W/C
.200	-3.500	61.26100	.43600	.43600	.43600	.43400	.39500	.39400	1.62890	1.62400	.24300
.201	.100	61.47300	.43600	.43600	.43500	.43500	.39500	.39400	1.62360	1.61940	.24300
.202	5.400	61.16200	.43500	.43600	.43400	.43400	.39500	.39400	1.61700	1.61080	.24400
.203	10.800	61.35200	.43600	.43700	.43300	.43300	.39800	.39500	1.62610	1.61290	.24400
.204	15.900	62.01900	.43700	.43400	.43100	.43100	.39800	.39600	1.61630	1.61980	.24600
.204	19.000	62.26100	.43700	.43300	.42900	.42900	.39800	.39900	1.61440	1.61930	.24600
GRADIENT	.05333		.00000	.00008	.00008	.00008	.00000	.00000	-.00147	-.00128	-.00000

NR-701 ORB 816C507J3612487+CP

(DDM428) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 30.FT. 100RP = 43.5974 INCHES  
 LWRP = 19.2999 INCHES 100RP = .0000 INCHES  
 BRDF = 37.9349 INCHES 200RP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 428/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CP81	CP90	CP911	CP912	CP904	CP902	MIN	MON	PRT1	PRT0
.200	-3.900	-2.80600	-2.65000	-2.79400	-2.82200	-2.71100	-2.80400	.39700	.39400	.99710	1.00020
.201	.100	-2.85500	-2.65800	-2.83600	-2.87500	-2.71500	-2.59700	.39700	.39300	.99530	.99970
.202	5.400	-2.79200	-2.61800	-2.77400	-2.81100	-2.68500	-2.55200	.39700	.39300	.99610	.99960
.203	10.800	-2.75000	-2.63100	-2.74100	-2.77000	-2.70900	-2.55300	.40000	.39500	.99620	.99960
.204	15.900	-2.68400	-2.63500	-2.66900	-2.69900	-2.73100	-2.53800	.39900	.39700	.99680	.99920
	19.000	-2.66400	-2.67900	-2.64900	-2.67900	-2.79800	-2.56300	.39900	.40000	.99910	.99940
GRADIENT		.00056	.00056	-.01167	-.01417	-.00111	.00194	-.00700	-.00028	-.00050	-.00014

NR-701 ORB 816C507J3612487+CP

(EDM428) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 30.FT. 100RP = 43.5974 INCHES  
 LWRP = 19.2999 INCHES 100RP = .0000 INCHES  
 BRDF = 37.9349 INCHES 200RP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 428/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CP81	CP90	CP911	CP912	CP904	CP902	MIN	MON	PRT1	PRT0
.200	-3.900	60.28100	.99990	.99950	.99770	.99640	.99360	.99630	.99760	.99720	.99740
.201	.100	30.47500	.99770	.99630	.99390	.99330	.99260	.99310	.99350	.99570	.99710
.202	5.400	61.18200	.99570	.99520	.99490	.99520	.99500	.99610	.99340	.99820	.99910
.203	10.800	61.35200	.99840	.99830	.99820	.99830	.99830	.99420	.99630	.99950	.99950
.204	15.900	62.01900	.99910	.99910	.99920	.99890	.99880	.99680	.99840	.99910	.99910
	19.000	62.26100	.99930	.99930	.99920	.99920	.99920	.99740	.99880	.99930	.99930
GRADIENT		.05333	-.00061	-.00049	-.00106	-.00086	-.00022	-.00069	-.00114	-.00042	-.00018

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(PDMA28) ( 29 SEP 73 )

NR-701 ORB B16C507J3C12M87\*GP

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 OA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 428/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.200	-3.500	60.28100	1.00010	1.00010	1.00010	1.00020	1.00010	1.00040	1.00010	1.00030	1.00030
.201	.100	60.47300	.99960	.99960	.99960	.99970	.99960	.99990	.99960	.99980	.99980
.202	5.400	61.18200	.99950	.99960	.99957	.99960	.99950	.99980	.99960	.99980	.99970
.202	10.600	61.35200	.99950	.99950	.99950	.99960	.99950	.99980	.99950	.99970	.99970
.203	15.800	62.01900	.99920	.99920	.99910	.99920	.99910	.99940	.99920	.99930	.99930
.204	19.000	62.26100	.99930	.99930	.99930	.99940	.99930	.99970	.99930	.99950	.99950
GRADIENT	.05333		-.00014	-.00014	-.00014	-.00014	-.00014	-.00014	-.00014	-.00014	-.00014

NR-701 ORB B16C507J3C12M87\*GP

(CDMA29) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DF = .000 OA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 429/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	WFI	WFO	WC
.200	-3.500	60.24800	.36500	.36800	.36300	.36400	.34700	.34600	1.43060	1.42900	.24200
.201	.100	60.54800	.36300	.36800	.36200	.36500	.34500	.34600	1.42210	1.42590	.24300
.202	5.400	61.30400	.36300	.36700	.36100	.36400	.34700	.34700	1.41890	1.41870	.24400
.202	10.600	61.41400	.36500	.36800	.36300	.36300	.34900	.34700	1.42890	1.42010	.24400
.203	15.800	61.96000	.36700	.36800	.36400	.36300	.35000	.34900	1.42530	1.42320	.24500
.204	19.000	62.24300	.36700	.36400	.36400	.36100	.35000	.35200	1.42160	1.43180	.24600
GRADIENT	.08278		-.00016	-.00028	-.00028	-.00028	-.00056	-.00056	-.00236	-.00086	.00028



REFERENCE DATA  
 SREF = 4.4119 98.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA  
 BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 429/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.200	-3.500	60.24800	1.00020	1.00020	1.00020	1.00020	1.00010	1.00050	1.00020	1.00040	1.00040
.201	.100	60.54600	.99970	.99970	.99970	.99980	.99970	1.00000	.99970	.99990	.99990
.202	5.400	61.30400	.99950	.99950	.99950	.99960	.99950	.99980	.99950	.99970	.99970
.202	10.600	61.41400	.99950	.99950	.99940	.99950	.99940	.99970	.99950	.99960	.99960
.203	15.800	61.96000	.99930	.99930	.99930	.99940	.99930	.99960	.99930	.99950	.99950
.204	19.000	62.24300	.99920	.99920	.99920	.99920	.99920	.99950	.99920	.99940	.99940
GRADIENT	.08278		-.00014	-.00014	-.00014	-.00011	-.00011	-.00014	-.00014	-.00014	-.00014

REFERENCE DATA  
 SREF = 4.4119 98.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA  
 BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 430/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFR1	MFR0	WC
.201	-3.500	60.63500	.28500	.29000	.28400	.28700	.28200	.28300	1.16240	1.16650	.24300
.201	.200	60.85500	.28300	.29000	.28200	.28700	.28700	.28300	1.15080	1.16310	.24300
.202	5.400	61.15600	.28300	.28900	.28200	.28600	.28200	.28300	1.15590	1.16240	.24400
.202	10.600	61.25100	.28300	.28900	.28200	.28700	.28100	.28300	1.15390	1.16080	.24400
.202	15.800	61.45900	.28600	.28800	.28500	.28600	.28500	.28300	1.16790	1.16010	.24400
.203	19.000	62.07500	.28900	.28700	.28700	.28500	.28600	.24900	1.16710	1.16540	.24500
.203	19.000	62.22800	.29100	.25900	.29000	.27000	.28900	.24900	1.17650	1.01370	.24600
GRADIENT	.05892		-.00054	.00000	-.00054	-.00054	-.00054	.00000	-.00314	-.00092	-.00000

NR-701 ORB B16C507J3612487+CP

REFERENCE DATA

BRPF = 4.4119 30.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRPF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 PD = 2.000

RUN NO. 430/ 0 PVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CP81	CP80	CP811	CP812	CP801	CP802	MIN	MAX	PRT1	PRT0
.201	-3.970	-1.0670	-1.7870	-1.6200	-1.9700	-1.8100	-1.7490	.2700	.2700	.99750	1.00000
.201	.200	-1.9130	-1.7750	-1.9050	-1.9200	-1.8100	-1.7410	.2690	.2700	.99510	.99980
.202	5.400	-1.0940	-1.7700	-1.6970	-1.9050	-1.8210	-1.7330	.2700	.2700	.99870	.99970
.202	5.110	-1.0910	-1.7710	-1.6910	-1.9070	-1.8180	-1.7290	.2700	.2700	.99590	.99970
.202	10.600	-1.0490	-1.7750	-1.6990	-1.8970	-1.7970	-1.7200	.2700	.2700	.99830	.99960
.203	15.900	-1.6190	-1.8000	-1.8120	-1.8280	-1.8780	-1.7930	.2740	.2700	.99970	.99940
.203	19.000	-1.8470	-2.1220	-1.8410	-1.8570	-2.3620	-1.8750	.2770	.2700	.99910	.95080
GRADIENT		-1.01243	.00135	-1.11192	-1.03351	.00000	.00216	-1.00054	.00000	-1.00059	-1.00005

NR-701 ORB B16C507J3612487+CP

REFERENCE DATA

BRPF = 4.4119 30.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRPF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 PD = 2.000

RUN NO. 430/ 0 PVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	0	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.970	60.63900	.99980	.99980	.99780	.99680	.99470	.99680	.99750	.99730	.99730
.201	.200	60.85300	.99700	.99590	.99400	.99340	.99290	.99340	.99370	.99340	.99650
.202	5.400	61.15600	.99540	.99510	.99490	.99510	.99570	.99240	.99350	.99790	.99880
.202	5.400	61.25100	.99520	.99500	.99490	.99520	.99580	.99290	.99350	.99780	.99890
.202	10.600	61.45900	.99840	.99840	.99840	.99830	.99820	.99530	.99710	.99940	.99950
.203	15.900	62.07900	.99930	.99920	.99910	.99920	.99970	.99750	.99860	.99930	.99930
.203	19.000	62.22800	.99920	.99920	.99910	.99910	.99910	.99800	.99880	.99920	.99920
GRADIENT		.05892	-1.00000	-1.00092	-1.00103	-1.00092	-1.00049	-1.00086	-1.00103	-1.00051	-1.00022



REFERENCE DATA

SRF = 4.4119 90.FT. XARR = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARR = .0000 INCHES  
 BRP = 37.9349 INCHES ZARR = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 PD = 2.000

RUN NO. 430/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.500	60.63500	.99990	.99990	.99990	1.00000	.99990	1.00000	.99990	1.00010	1.00010
.201	.200	60.85300	.99970	.99970	.99970	.99980	.99970	1.00000	.99970	.99990	.99990
.202	5.400	61.15600	.99960	.99960	.99960	.99970	.99960	.99990	.99960	.99980	.99980
.202	5.400	61.25100	.99960	.99970	.99970	.99970	.99960	1.00000	.99960	.99980	.99980
.202	10.600	61.45900	.99950	.99950	.99950	.99950	.99950	.99980	.99950	.99970	.99970
.203	15.900	62.07500	.99930	.99930	.99930	.99940	.99920	.99960	.99930	.99950	.99950
.203	19.000	62.22800	.91440	.92750	.98670	.99760	.99920	.99950	.99810	.92100	.91060
GRADIENT	.05892	.00000	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005	-.00005

REFERENCE DATA

SRF = 4.4119 90.FT. XARR = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARR = .0000 INCHES  
 BRP = 37.9349 INCHES ZARR = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 PD = 2.000

RUN NO. 431/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WTH	WCH	OWTH	OWCH	WIC	WOC	MFR1	MFR0	WC
.200	-3.500	60.16800	.20800	.21300	.20700	.21200	.21300	.21500	.88060	.88910	.24100
.201	.100	60.58400	.20400	.21300	.20400	.21200	.20900	.21500	.86130	.88650	.24200
.201	5.400	60.88400	.20600	.21300	.20500	.21200	.21100	.21400	.87000	.88130	.24300
.202	10.600	61.52600	.21000	.21200	.20800	.21000	.21600	.21500	.88510	.87930	.24400
.203	15.900	62.23100	.21200	.21000	.21100	.20800	.21700	.22100	.88440	.90010	.24500
.204	19.000	62.48500	.21600	.20400	.21500	.20600	.22100	.22100	.89980	.73660	.24600
GRADIENT	.11556	-.00111	-.00000	-.00000	-.00003	-.00003	-.00111	.00000	-.00536	-.00072	.00028





NR-701 ORB 816C507J3G12M87\*GP

(EDM432) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 432/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CP51	CP50	CP511	CP512	CP501	CP502	MIN	MON	PRT1	PRT0
.116	-3.500	-1.29100	-1.15400	-1.28800	-1.29300	-1.20700	-1.10000	.17200	.17000	.99890	.99980
.116	.100	-1.34600	-1.17200	-1.33900	-1.35300	-1.23900	-1.10600	.17100	.17000	.99830	.99970
.116	5.200	-1.30200	-1.13500	-1.29500	-1.31000	-1.23400	-1.03700	.17100	.16900	.99850	.99960
.117	10.400	-1.25300	-1.13200	-1.24800	-1.25700	-1.17300	-1.03700	.17400	.17100	.99920	.99970
.117	15.600	-1.22000	-1.19800	-1.21800	-1.22400	-1.29100	-1.10200	.17300	.17300	.99940	.99950
.117	18.700	-1.22000	-1.27700	-1.21700	-1.22300	-1.33200	-1.16200	.17300	.17600	.99940	.99950
GRADIENT		-.01528	-.00500	-.01417	-.01667	-.00889	-.00167	-.00228	-.00000	-.00017	-.00003

NR-701 ORB 816C507J3G12M87\*GP

(EDM432) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 432/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.116	-3.500	20.11700	.99980	.99950	.99910	.99880	.99870	.99850	.99890	.99900	.99890
.116	.100	20.04900	.99920	.99870	.99800	.99770	.99750	.99770	.99780	.99840	.99880
.116	5.200	20.25500	.99840	.99820	.99820	.99820	.99840	.99720	.99770	.99910	.99940
.117	10.400	20.46900	.99940	.99930	.99930	.99920	.99910	.99820	.99880	.99960	.99970
.117	15.600	20.63500	.99950	.99950	.99940	.99940	.99930	.99880	.99920	.99950	.99950
.117	18.700	20.61900	.99950	.99950	.99940	.99940	.99940	.99890	.99930	.99950	.99940
GRADIENT		-.01889	-.00017	-.00022	-.00031	-.00031	-.00014	-.00022	-.00031	-.00017	-.00003



REFERENCE DATA  
BREF = 4.4119 50.FT. YARP = 43.5974 INCHES BETA = .000 GPP = 154.000  
LREF = 19.2999 INCHES YARP = .0000 INCHES DE = .000 DA = .000  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES X/L = .000 LTP = 4.000  
SCALE = .0405 NBT = 5.000 RD = 2.000

PARAMETRIC DATA

RUN NO. 432/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.116	-3.500	20.11700	.99970	.99970	.99980	.99970	.99980	.99980
.116	.100	20.04900	.99970	.99970	.99980	.99970	.99980	.99980
.116	5.200	20.25500	.99960	.99960	.99960	.99960	.99970	.99980
.117	10.400	20.46900	.99970	.99970	.99970	.99970	.99980	.99970
.117	15.600	20.63300	.99950	.99950	.99950	.99950	.99960	.99980
.117	18.700	20.61500	.99950	.99950	.99940	.99940	.99950	.99950
GRADIENT	-0.01889	-0.00000	-0.00000	-0.00000	-0.00000	-0.00000	-0.00000	-0.00000

REFERENCE DATA  
BREF = 4.4119 50.FT. YARP = 43.5974 INCHES BETA = .000 GPP = 154.000  
LREF = 19.2999 INCHES YARP = .0000 INCHES DE = .000 DA = .000  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES X/L = .000 LTP = 4.000  
SCALE = .0405 NBT = 5.000 RD = 2.000

PARAMETRIC DATA

RUN NO. 433/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MERI	MERO	UC
.116	-3.500	20.06000	.26400	.26870	.26700	.26800	.26200	.25900	1.86550	1.84970	1.14000
.116	.100	20.13900	.26300	.26500	.26500	.26700	.26100	.25900	1.86150	1.84560	1.14000
.117	5.200	20.41300	.26400	.26500	.26700	.26800	.26200	.25900	1.85310	1.83240	1.14100
.117	10.400	20.46400	.26500	.26400	.26700	.26300	.25900	.25900	1.86150	1.83210	1.14100
.117	15.600	20.55500	.26600	.26400	.26700	.26300	.26000	.26000	1.85900	1.83370	1.14100
.117	18.700	20.60800	.26400	.26200	.26600	.26300	.26000	.26000	1.85190	1.83270	1.14200
GRADIENT	.02194	-0.00028	-0.00028	-0.00028	-0.00028	-0.00028	-0.00028	-0.00028	-0.00222	-0.00114	-0.00000

NR-701 ORB B16C507J3612N87+GP

(DDMMSS) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 32.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 433/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPSI	CP90	CP91	CP92	CP93	CP94	CP95	MIN	MON	PRT1	PRT0
.116	-3.500	-3.75700	-3.55500	-3.74500	-3.77000	-3.64300	-3.46800	-3.25300	.25000	.99890	.99970	.99970
.116	.100	-3.76900	-3.53800	-3.75000	-3.78900	-3.63400	-3.43700	.25200	.25000	.99840	.99970	.99970
.117	5.200	-3.74000	-3.46900	-3.68000	-3.72000	-3.58200	-3.35600	.24900	.24900	.99860	.99970	.99970
.117	10.400	-3.69200	-3.49000	-3.67500	-3.70900	-3.62300	-3.35700	.25400	.25000	.99970	.99970	.99970
.117	15.600	-3.63500	-3.48100	-3.62000	-3.65000	-3.50900	-3.30900	.25400	.25100	.99950	.99970	.99970
.117	18.700	-3.61700	-3.50900	-3.60300	-3.63100	-3.50800	-3.31000	.25400	.25100	.99930	.99940	.99940
GRADIENT	.00333	.00528	.00528	.00139	.00528	.00250	.00861	-.00028	.00000	-.00014	-.00000	-.00000

NR-701 ORB B16C507J3612N87+GP

(EDMMSS) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 32.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 433/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPSI	CP90	CP91	CP92	CP93	CP94	CP95	MIN	MON	PRT1	PRT0
.116	-3.500	-3.75700	-3.55500	-3.74500	-3.77000	-3.64300	-3.46800	-3.25300	.25000	.99890	.99970	.99970
.116	.100	-3.76900	-3.53800	-3.75000	-3.78900	-3.63400	-3.43700	.25200	.25000	.99840	.99970	.99970
.117	5.200	-3.74000	-3.46900	-3.68000	-3.72000	-3.58200	-3.35600	.24900	.24900	.99860	.99970	.99970
.117	10.400	-3.69200	-3.49000	-3.67500	-3.70900	-3.62300	-3.35700	.25400	.25000	.99970	.99970	.99970
.117	15.600	-3.63500	-3.48100	-3.62000	-3.65000	-3.50900	-3.30900	.25400	.25100	.99950	.99970	.99970
.117	18.700	-3.61700	-3.50900	-3.60300	-3.63100	-3.50800	-3.31000	.25400	.25100	.99930	.99940	.99940
GRADIENT	.02194	.00528	.00528	.00139	.00528	.00250	.00861	-.00028	.00000	-.00014	-.00000	-.00000



DATE 05 DEC 73

TABULATED POPULATION SOURCE DATA NUAL-701

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NR-701 ORB B16C507J3612487+CP

(CDM433) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
SRF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LTP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 433/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.116	-3.500	20.06000	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99963
.116	.100	20.13900	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.117	5.200	20.41300	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.117	10.400	20.46400	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.117	15.600	20.55500	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99970	.99970
.117	16.700	20.60800	.99940	.99940	.99940	.99940	.99940	.99950	.99940	.99950	.99950
GRADIENT	.02194		-.00000	-.00000	-.00000	-.00000	-.00000	.00000	-.00000	.00000	.00000

NR-701 ORB B16C507J3612487+CP

(CDM434) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
SRF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LTP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 434/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	WFM	WON	QVM	QVM	WTC	WOC	WFR1	WFR0	WC
.116	-3.500	19.99400	.34800	.34800	.35100	.35100	.33200	.32800	2.37390	2.34500	.14000
.116	.000	20.22700	.34900	.34900	.35200	.35100	.33200	.32800	2.35990	2.32850	.14000
.117	5.200	20.34200	.34900	.34900	.35200	.35200	.33300	.32800	2.35690	2.32610	.14100
.116	10.400	20.30800	.34800	.34800	.35100	.35100	.33300	.32800	2.36100	2.32710	.14100
.117	15.600	20.49300	.34800	.34800	.35100	.35100	.33200	.32800	2.34510	2.31680	.14100
.116	16.700	20.75700	.34800	.34800	.35100	.35100	.33200	.32900	2.33130	2.30790	.14200
GRADIENT	.06657		.00029	.00029	.00029	.00000	.00000	.00000	-.00400	-.00471	.00000

NR-701 ORB B16C507J3G12M87+CP

(EDM434) ( 29 SEP 75 )

## REFERENCE DATA

BREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 434/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPX1	CPX0	CPX11	CPX12	CPX01	CPX02	MIN	MON	PRT1	PRT0
.116	-3.500	-6.81100	-6.53800	-6.82300	-6.87800	-6.68200	-6.41000	.32900	.32400	.99890	.99980
.116	.000	-6.80400	-6.44500	-6.77000	-6.83800	-6.58100	-6.30800	.32900	.32400	.99840	.99970
.117	5.200	-6.76900	-6.42700	-6.73900	-6.80200	-6.57900	-6.27400	.33000	.32400	.99860	.99970
.116	10.400	-6.76300	-6.44700	-6.73300	-6.79300	-6.61800	-6.27500	.33000	.32400	.99890	.99960
.117	15.600	-6.61000	-6.37700	-6.57800	-6.64100	-6.57400	-6.18000	.32900	.32400	.99930	.99960
.118	18.700	-6.52200	-6.33100	-6.49300	-6.55100	-6.54600	-6.11600	.32900	.32500	.99930	.99950
GRADIENT	.01343	.02600	.02600	.01514	.01143	.02314	.02914	.00000	.00000	-.00014	-.00003

NR-701 ORB B16C507J3G12M87+CP

(EDM434) ( 29 SEP 75 )

## REFERENCE DATA

BREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 434/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.116	-3.500	19.98400	.99980	.99970	.99910	.99860	.99750	.99820	.99890	.99910	.99920
.116	.000	20.22700	.99940	.99900	.99790	.99760	.99740	.99760	.99780	.99810	.99910
.117	5.200	20.34200	.99880	.99850	.99810	.99820	.99840	.99840	.99750	.99840	.99960
.116	10.400	20.30800	.99930	.99920	.99910	.99900	.99900	.99930	.99810	.99950	.99950
.117	15.600	20.49300	.99980	.99980	.99950	.99940	.99940	.99710	.99910	.99960	.99960
.118	18.700	20.75700	.99950	.99950	.99950	.99950	.99950	.99710	.99920	.99950	.99950
GRADIENT	.06657	.00011	-.00020	-.00020	-.00034	-.00029	-.00003	-.00017	-.00031	-.00014	-.00003



NR-701 ORB B16C507J3612487+CP

REFERENCE DATA  
 BREF = 4.4119 80.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 SREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA  
 BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LTP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 434/ 0 RNAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.116	-3.500	19.98400	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980
.116	.000	20.22700	.99970	.99980	.99970	.99980	.99980	.99970	.99980	.99970	.99970
.117	5.200	20.34200	.99970	.99970	.99970	.99980	.99980	.99970	.99980	.99970	.99970
.116	10.400	20.30600	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980
.117	15.600	20.49300	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980
.118	18.700	20.75700	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990
GRADIENT	.06657		-.00003	-.00006	-.00003	-.00003	-.00006	-.00003	-.00006	-.00006	-.00003

NR-701 ORB B16C507J3612487+CP

REFERENCE DATA  
 BREF = 4.4119 80.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 SREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA  
 BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LTP = 4.000  
 NBT = 5.000 RD = 2.000

RUN NO. 435/ 0 RNAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WTC	WOC	WTRI	WPRO	WC
.116	-3.500	20.21800	.42200	.42300	.42800	.42800	.38300	.37900	2.72220	2.69280	.14000
.116	.000	20.06700	.42000	.42100	.42400	.42500	.38200	.37800	2.72700	2.69660	.14000
.116	5.200	20.32000	.41900	.42100	.42300	.42400	.38300	.37800	2.71480	2.68250	.14100
.116	10.400	20.32400	.42000	.42100	.42300	.42500	.38300	.37800	2.71360	2.68150	.14100
.117	15.600	20.65800	.41900	.41900	.42300	.42800	.38300	.37900	2.69110	2.66490	.14200
.117	18.700	20.66100	.42100	.42100	.42500	.42500	.38400	.38100	2.69700	2.67710	.14200
GRADIENT	-.04139		-.00056	-.00056	-.00056	-.00028	-.00028	-.00028	.00153	.00111	-.00000

DDA 635) ( 29 SEP 73 )

NO-71: 088 818C507J3612487+6P

### PARAMETRIC DATA

BETA	=	.000	GP+	=	154.000
DE	=	.000	DA	=	.000
W/L	=	.000	LIP	=	4.000
RY	=	5.000	RO	=	2.000

REFERENCE DATA					
WADP =	4.4159	50.17	WADP =	43.5974	INCHES
INDY =	19.2999	INCHES	WADP =	.0000	INCHES
WADP =	37.9349	INCHES	WADP =	16.2000	INCHES
SCALE =	.0405				

GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

RECEIVED ( 29 SEP 73 )

[illegible]

### PARAMETRIC DATA

BETA	=	.000	CPP	=	154.000
OE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4.000
NGT	=	5.000	RO	=	2.000

**REFERENCE DATA**

WGT =	4.4119	98. FT.	WAPP =	43.9974	INCHES
WGT =	19.2999	INCHES	WAPP =	.0007	INCHES
WGT =	37.9349	INCHES	WAPP =	16.2070	INCHES
SCALE =	.0405				

12 GRADIENT INTERVAL = -5.00/ 5.00

	Q	ALPHA	RUN NO.	433/1	REV.	DATE
440-1	20.21400	-3.500	99971	99971	99971	99971
.116	20.06700	.116	99972	99972	99972	99972
.116	20.32000	.116	99973	99973	99973	99973
.116	20.32400	10.400	99974	99974	99974	99974
.116	20.65400	15.000	99975	99975	99975	99975
.117	20.66100	16.000	99976	99976	99976	99976
			99977	99977	99977	99977
			99978	99978	99978	99978
			99979	99979	99979	99979
			99980	99980	99980	99980
			99981	99981	99981	99981
			99982	99982	99982	99982
			99983	99983	99983	99983
			99984	99984	99984	99984
			99985	99985	99985	99985
			99986	99986	99986	99986
			99987	99987	99987	99987
			99988	99988	99988	99988
			99989	99989	99989	99989
			99990	99990	99990	99990
			99991	99991	99991	99991
			99992	99992	99992	99992
			99993	99993	99993	99993
			99994	99994	99994	99994
			99995	99995	99995	99995
			99996	99996	99996	99996
			99997	99997	99997	99997
			99998	99998	99998	99998
			99999	99999	99999	99999
			100000	100000	100000	100000



DATE 09 DEC 75

TABULATED PROPELLSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3G12M87\*GP

(FDN435) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 435/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.116	-3.500	20.21600	.99970	.99970	.99970	.99970	.99980	.99980	.99970	.99980	.99980
.116	-1.000	20.06700	.99980	.99980	.99980	.99980	.99990	.99980	.99980	.99980	.99980
.116	5.200	20.32000	.99960	.99960	.99960	.99960	.99970	.99970	.99960	.99970	.99970
.116	10.400	20.32400	.99960	.99960	.99960	.99960	.99970	.99970	.99960	.99970	.99970
.117	15.600	20.65600	.99950	.99950	.99950	.99950	.99960	.99960	.99950	.99950	.99950
.117	18.700	20.66100	.99960	.99960	.99960	.99970	.99970	.99970	.99960	.99970	.99970
GRADIENT		-.04139	.00003	.00003	.00003	.00003	-.00003	.00003	.00003	.00003	.00000

NR-701 ORB B16C507J3G12M87\*GP

(CDN436) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 436/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WTM	WOM	OWM	OWM	WTC	WOC	MFR1	MFR0	WC
.116	-3.500	20.16100	.42000	.42000	.42000	.42000	.38200	.37900	2.72000	2.69420	.14000
.116	-3.500	20.15500	.17800	.17800	.17900	.17900	.18200	.18000	1.29800	1.28140	.14000
.116	.100	20.27800	.17900	.18000	.18000	.18000	.18200	.18000	1.29600	1.28050	.14100
.116	.000	20.25300	.41900	.41900	.42000	.42000	.38200	.37800	2.71260	2.68150	.14100
GRADIENT		.03037	-.00095	-.00095	-.00096	-.00096	-.00079	-.00093	-.00694	-.00747	.00028

(DOM436) ( 29 SEP 75 )

NR-701 ORB 816C507J3G12487+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 436/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

MACH	ALPHA	CP31	CP30	CP311	CP312	CP301	CP302	MIN	MON	PRT1	PRT0
.116	-3.500	-9.49700	-9.26400	-9.43600	-9.55800	-9.38800	-9.13900	.38800	.38300	.99960	.99970
.116	-3.500	-1.20400	-1.14600	-1.19200	-1.21600	-1.16100	-1.13000	.17000	.17000	.99970	.99970
.116	.100	-1.20000	-1.14600	-1.18600	-1.21400	-1.17400	-1.11800	.17200	.17000	.99970	.99970
.116	.000	-9.43800	-9.16800	-9.37600	-9.50100	-9.30600	-9.03100	.38800	.38200	.99960	.99960
	GRADIENT	.04154	.04533	.04177	.04117	.04197	.04828	-.02786	-.02798	.00000	-.00001

NR-701 ORB 816C507J3G12487+CP

(EDM436) ( 29 SEP 75 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 436/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.116	-3.500	20.16100	.99960	.99970	.99970	.99970	.99970	.99910	.99970	.99970	.99970
.116	-3.500	20.15500	.99970	.99970	.99970	.99970	.99970	.99970	.99970	.99970	.99970
.116	.100	20.27800	.99970	.99970	.99970	.99970	.99970	.99970	.99970	.99970	.99970
.116	.000	20.25300	.99960	.99960	.99960	.99960	.99960	.99960	.99960	.99960	.99960
	GRADIENT	.03037	.00000	-.00001	-.00001	-.00001	-.00001	.00008	-.00001	-.00001	-.00001

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(PDN436) ( 29 SEP 73 )

NR-701 ORB B16C507J3G12W487+GP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 436/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

BREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO7	PRTO8	PRTO8
.116	-3.500	20.16100	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.116	-3.500	20.15500	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.116	.100	20.27800	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99970
.116	.000	20.25300	.99960	.99960	.99960	.99970	.99960	.99970	.99970	.99970
GRADIENT	.03037	-.00001	-.00001	-.00001	-.00001	-.00001	-.00001	-.00001	-.00001	-.00001

(CDN437) ( 29 SEP 73 )

NR-701 ORB B16C507J3G12W487+GP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = 5.000 RD = 2.000

RUN NO. 437/ 0 RV/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

REFERENCE DATA

BREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

MACH	ALPHA	Q	VIM	WIM	OWIM	OWIM	WIC	WOC	WFI	WFO	WC
.000	-3.500	.00000	.16300	.16200	.16500	.16400	.16900	.16800	.16970	.16830	.00000
.000	.000	.00000	.16200	.16200	.16400	.16400	.16900	.16800	.16990	.16660	.00000
.000	.000	.00000	.16200	.16200	.16400	.16400	.16900	.16800	.16930	.16810	.00000
.000	9.900	.00000	.16300	.16200	.16400	.16400	.16900	.16800	.16940	.16830	.00000
.000	14.970	.00000	.16300	.16200	.16400	.16400	.16900	.16800	.16950	.16750	.00000
.000	17.970	.00000	.16200	.16200	.16300	.16200	.16800	.16600	.16890	.16620	.00000
GRADIENT	.00000	.00000	-.00011	.00000	-.00011	.00000	-.00000	.00000	-.00005	-.00003	.00000

NP-701 332 819C507J36!2-07+CP

(DONA 37) (29 SEP 73)

## REFERENCE DATA

9999 =	4,419	90,171	999 =	43,174	100ES
1000 =	19,299	100ES	1000 =	100	100ES
9999 =	37,949	100ES	9999 =	16,200	100ES
1000 =	100	100ES			

RUN NO. 437/1    RVAL = .55    GRADIENT INTERVAL = -5.00/ 5.00

### PARAMETRIC DATA

BETA	=	,000	GDP	=	:54,000
DE	=	,000	CA	=	,000
XU	=	,000	LTP	=	4,000
NET	=	,000	PQ	=	2,000

ALPHA	CPH1	CPH0	CPH11	CPH12	CPH04	CPH02	W1N	W0N	PRT1	PG TO
-3.900	-3.7800	-3.7700	-3.7700	-3.8200	-3.7300	-3.6700	.1500	.1500	.99990	.99990
.000	-3.7800	-3.7800	-3.7800	-3.7800	-3.7800	-3.6800	.1500	.1500	.99990	.99990
4.500	-3.7400	-3.6800	-3.6800	-3.7900	-3.7200	-3.6500	.1500	.1500	1.00000	1.00000
9.000	-3.7400	-3.6900	-3.6900	-3.7900	-3.7400	-3.6500	.1500	.1500	1.00000	1.00000
14.500	-3.7000	-3.6600	-3.6600	-3.8100	-3.6900	-3.6300	.1500	.1500	1.00000	1.00000
19.500	-3.7300	-3.7100	-3.7100	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
24.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
29.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
34.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
39.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
44.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
49.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
54.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
59.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
64.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
69.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
74.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
79.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
84.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
89.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
94.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
99.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
104.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
109.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
114.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
119.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
124.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
129.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
134.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
139.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
144.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.00000
149.500	-3.7300	-3.7200	-3.7200	-3.7900	-3.6900	-3.6700	.1500	.1500	1.00000	1.

80-4686; 261-2559; 250 111-4-4

(L5 MWG) (29 SEP 73)

## REFERENCE DATA

WRF =	4.4119	50.17.	WRF =	43.9874	INCES
URF =	19.2999	INCES	URF =	9.000	INCES
BRF =	37.9249	INCES	BRF =	16.200	INCES
SCALE =		.0403			

REGRESS NO. 437/0 BVL = .55 GRADIENT INTERVAL = -5.00/ 5.00

### PARAMETRIC DATA

BETA	=	.000	QPP	=	194.000
DE	=	.000	DA	=	.000
YVL	=	.000	LIP	=	4.000
YBT	=	.000	PG	=	2.000

[illegible]

REGULATING INFORMATION SOURCE DATA MAIL-75:

DATE 05 JUL 72

OFFICIALS ( 29 SEP 73 )

[illegible]

MANAGEMENT DATA

BETA	=	.005	0.00	=	154.000
DE	=	.005	0.00	=	.000
HA	=	.005	1.18	=	4.000
BT	=	.005	0.00	=	2.000

**SECRET**

8007 = 4,4119 80.07. 8009 = 43,9974 140E3  
 1007 = 19,2999 140E3 1409 = .0000 140E3  
 2007 = 37,9149 140E3 2009 = 18,2000 140E3  
 3007 = .0000 140E3

$\text{CO}_2$  /  $\text{CO}_2$  = 760 / 9.8 = 76.5 CO<sub>2</sub> CONCENTRATION = 76.5 CO<sub>2</sub>

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100

8-15-58

100	2	100	2
100	2	100	2
100	2	100	2
100	2	100	2

## **NOTES**

1000	=	4,415	56,571	000	=	42,594	1000
1000	=	1,000	1000	000	=	1,000	1000
1000	=	1,000	1000	000	=	1,000	1000

$$\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ 1 & -1 \end{pmatrix} \frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ 1 & -1 \end{pmatrix} = \frac{1}{2} \begin{pmatrix} 1 & 1 \\ 1 & -1 \end{pmatrix} \begin{pmatrix} 1 & 1 \\ 1 & -1 \end{pmatrix} = \frac{1}{2} \begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$$
[illegible]

## TABULATED PROPULSION SOURCE DATA NAAL-701

(DDM438) ( 29 SEP 73 )

NF-701 ORB B16C507J3G12487+CP

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

BETA =  
 DE =  
 X/L =  
 NBT =

GPP = 154.000  
 DA = .000  
 LIP = 4.000  
 RD = 2.000

RUN NO. 438/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CPSO	CPS11	CPS12	CPSO1	CP902	MIN	MON	PRT1	PRT0
.000	-3.500	-.89200	-.87100	-.88200	-.90200	-.88400	-.85800	.24800	.24500	.99990	.99990
.000	.000	-.89400	-.87300	-.88400	-.90400	-.88200	-.85900	.24800	.24500	.99990	.99990
.000	4.900	-.89400	-.87200	-.88400	-.90400	-.88300	-.86100	.24700	.24500	.99980	1.00000
.000	9.900	-.89300	-.87300	-.88300	-.91000	-.88600	-.86100	.24900	.24500	.99990	.99990
.000	14.900	-.89300	-.86900	-.88300	-.91100	-.88200	-.85700	.24800	.24500	.99970	1.00000
.000	17.900	-.89300	-.87500	-.89000	-.91000	-.88900	-.86100	.24900	.24600	1.00000	1.00000
GRADIENT	-.00022	-.00014	-.00022	-.00022	-.00022	-.00010	-.00036	-.00012	.00000	-.00004	.00001

(EDM438) ( 29 SEP 73 )

NF-701 ORB B16C507J3G12487+CP

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

BETA =  
 DE =  
 X/L =  
 NBT =

GPP = 154.000  
 DA = .000  
 LIP = 4.000  
 RD = 2.000

RUN NO. 438/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.000	-3.500	.00000	.99990	.99990	.99990	.99990	.99960	.99990	.99990	1.00000	1.00000
.000	.000	.00000	.99990	.99990	.99990	1.00000	.99950	.99990	.99990	1.00000	1.00000
.000	4.900	.00000	.99990	.99990	.99990	.99990	.99820	.99990	.99990	.99990	1.00000
.000	9.900	.00000	.99990	.99990	.99990	.99990	.99970	.99990	.99990	.99990	1.00000
.000	14.900	.00000	.99990	.99990	1.00000	1.00000	.99870	.99990	.99990	.99990	1.00000
.000	17.900	.00000	.99990	.99990	1.00000	1.00000	1.00000	.99980	.99990	.99990	1.00000
GRADIENT	.00000	.00000	.00000	.00000	.00000	-.00000	-.00017	.00000	.00000	-.00001	.00000





## TABULATED PROPELLSION SOURCE DATA NAAL-701

DATE 05 DEC 73

(FDN438) ( 29 SEP 73 )

NR-701 ORB B16C507J3G124874CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 438/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.000	-3.900	.00000	.99990	.99990	1.00000	.99990	.99990	.99990	.99990	.99990	1.00000
.000	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
.000	4.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
.000	9.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
.000	14.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
.000	17.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

NR-701 ORB B16C507J3G124874CP

(CDN439) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 439/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	W/M	WOM	Q/M	Q/M	W/C	W/C	W/F	W/F	W/C
.000	-3.900	.00000	.34200	.33900	.34800	.34200	.32900	.32400	.32910	.32460	.00000
.000	.000	.00000	.33900	.33600	.34200	.33900	.32600	.32200	.32690	.32260	.00000
.000	4.900	.00000	.33700	.33500	.34100	.33800	.32500	.32100	.32580	.32110	.00000
.000	9.900	.00000	.33700	.33400	.34000	.33700	.32500	.32100	.32540	.32100	.00000
.000	14.900	.00000	.33900	.33600	.34200	.33900	.32700	.32100	.32700	.32180	.00000
.000	18.000	.00000	.33900	.33500	.34200	.33900	.32700	.32200	.32750	.32200	.00000
GRADIENT		.00000	-.00058	-.00046	-.00057	-.00046	-.00046	-.00022	-.00041	-.00029	.00000

DATE 05 DEC 73

TABULATED PROFLUSSION SOURCE DATA NUAL-701

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NR-701 ORB B16C507J3G12M87\*GP

(DDM439) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .0000 GPP = 154.000  
 DE = .0000 DA = .0000  
 X/L = .0000 LTP = 4.0000  
 NBT = .0000 RD = 2.0000

RUN NO. 439/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CPSI	CPSO	CPSI1	CPSI2	CPSOL	CPSO2	MIN	MON	PRTI	PRT0
.0000	-3.500	-1.50700	-1.46000	-1.49000	-1.52400	-1.48000	-1.43900	.32600	.32700	.99980	.99990
.0000	.000	-1.48400	-1.44100	-1.46600	-1.50200	-1.46100	-1.42000	.32300	.31800	.99990	.99990
.0000	4.900	-1.47800	-1.43500	-1.45900	-1.49600	-1.45400	-1.41700	.32200	.31800	.99960	1.00000
.0000	9.500	-1.47300	-1.42900	-1.45300	-1.49400	-1.44100	-1.40800	.32100	.31600	.99970	1.00000
.0000	14.900	-1.48300	-1.43200	-1.46400	-1.50200	-1.45200	-1.41300	.32300	.31700	.99990	1.00000
.0000	18.000	-1.48900	-1.43400	-1.46900	-1.50900	-1.45000	-1.41800	.32400	.31700	.99990	1.00000
GRADIENT	.00331	.00286	.00355	.00320	.00299	.00249	.00249	-.00249	-.00022	-.00003	.00001

NR-701 ORB B16C507J3G12M87\*GP

(EDM439) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .0000 GPP = 154.000  
 DE = .0000 DA = .0000  
 X/L = .0000 LTP = 4.0000  
 NBT = .0000 RD = 2.0000

RUN NO. 439/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.0000	-3.500	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
.0000	.000	.00000	.99990	.99990	.99990	1.00000	.99990	.99990	.99990	.99990	1.00000
.0000	4.900	.00000	.99990	.99990	.99990	1.00000	.99990	.99990	.99990	1.00000	1.00000
.0000	9.500	.00000	.99990	.99990	.99990	1.00000	.99990	.99990	.99990	1.00000	1.00000
.0000	14.900	.00000	.99990	.99990	.99990	1.00000	.99990	.99990	.99990	1.00000	1.00000
.0000	18.000	.00000	.99990	.99990	.99990	1.00000	.99990	.99990	.99990	1.00000	1.00000
GRADIENT	.00331	.00286	.00355	.00320	.00299	.00249	.00249	-.00249	-.00022	-.00003	.00001



NR-701 ORB B16C507J3G12A87+GP

REFERENCE DATA

SREF = 4.4119 90.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

RUN NO. 439/ 0 RNVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.000	-3.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000	1.00000
.000	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
.000	4.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000	1.00000
.000	9.900	.00000	.99990	1.00000	.99990	.99990	.99990	1.00000	.99990	1.00000	1.00000
.000	14.900	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000	1.00000
.000	18.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000	1.00000
GRADIENT		.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

NR-701 ORB B16C507J3G12A87+GP

REFERENCE DATA

SREF = 4.4119 90.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

RUN NO. 440/ 0 RNVL = .00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WM	WOM	QVIM	QVOM	WIC	WOC	MR1	MR0	WC
.000	-3.500	.00000	.41600	.41300	.42000	.41700	.38100	.37700	.38170	.37730	.00000
.000	.000	.00000	.41700	.41400	.42100	.41800	.38100	.37700	.38160	.37730	.00000
.000	4.900	.00000	.41700	.41400	.42100	.41800	.38200	.37700	.38210	.37740	.00000
.000	9.900	.00000	.41700	.41400	.42100	.41800	.38200	.37700	.38230	.37730	.00000
.000	14.900	.00000	.41800	.41400	.42200	.41800	.38200	.37600	.38290	.37660	.00000
.000	17.900	.00000	.41600	.41300	.42000	.41700	.38200	.37630	.38270	.37680	.00000
GRADIENT		.00000	.00011	.00011	.00011	.00011	.00012	-.00000	.00005	.00002	.00000

NR-701 ORB 816C507J3G12A87+CP

REFERENCE DATA

PARAMETRIC DATA

SREF = 4.4119 50.FT.

LREF = 19.2999 INCHES

BREF = 37.9349 INCHES

SCALE = .0405

XGRP = 43.5974 INCHES

YGRP = .0000 INCHES

ZGRP = 16.2000 INCHES

BETA =

DE =

X/L =

NBT =

.000

.000

.000

.000

GPP = 154.000

DA = .000

LIP = 4.000

RD = 2.000

RUN NO. 440/ 0 R/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CP31	CP30	CP311	CP312	CP304	CP302	MIN	MON	PRT1	PRT0
.000	-3.500	-2.09200	-2.03600	-2.16900	-2.11500	-2.06400	-2.00900	.38700	.38200	.99990	.99990
.000	.000	-2.08900	-2.03400	-2.06800	-2.11300	-2.05800	-2.01100	.38700	.38200	.99990	.99990
.000	4.900	-2.06600	-2.03800	-2.07300	-2.12200	-2.06700	-2.01600	.38800	.38200	.99990	.99990
.000	9.900	-2.09900	-2.03200	-2.07000	-2.12400	-2.05300	-2.01100	.38800	.38200	.99990	.99990
.000	14.900	-2.10600	-2.02800	-2.06100	-2.13000	-2.04700	-2.01000	.38900	.38100	.99990	.99990
.000	17.900	-2.10400	-2.03100	-2.03100	-2.12800	-2.05400	-2.00800	.38900	.38100	.99990	.99990
GRADIENT		-1.00054	-1.00028	-1.00016	-1.00090	-1.00039	-1.00085	.00012	-.00000	.00000	.00000

NR-701 ORB 816C507J3G12A87+CP

REFERENCE DATA

PARAMETRIC DATA

SREF = 4.4119 50.FT.

LREF = 19.2999 INCHES

BREF = 37.9349 INCHES

SCALE = .0405

XGRP = 43.5974 INCHES

YGRP = .0000 INCHES

ZGRP = 16.2000 INCHES

BETA =

DE =

X/L =

NBT =

.000

.000

.000

.000

GPP = 154.000

DA = .000

LIP = 4.000

RD = 2.000

RUN NO. 440/ 0 R/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.000	-3.500	.00000	.99990	.99990	1.00000	.99990	.99970	.99990	.99990	.99990	1.00000
.000	.000	.00000	.99990	.99990	.99990	.99990	.99990	.99990	.99990	.99990	1.00000
.000	4.900	.00000	.99990	.99990	.99990	1.00000	.99980	.99990	.99990	.99990	1.00000
.000	9.900	.00000	.99990	.99990	1.00000	1.00000	.99990	.99990	.99990	.99990	1.00000
.000	14.900	.00000	.99990	.99990	.99990	1.00000	1.00000	.99990	.99990	1.00000	1.00000
.000	17.900	.00000	.99990	.99990	.99990	1.00000	.99980	.99990	.99990	1.00000	1.00000
GRADIENT		.00000	.00000	.00000	-.00001	.00001	.00001	.00000	.00000	.00000	.00000

NO-751 CDB 8106307J361240700

(FORM 45) (29 SEP 73)

## REFERENCE DATA

BRD = 4,010 80, FT. 1000 = 43,5974 INCHES  
 LRD = 19,2999 INCHES 1000 = .0000 INCHES  
 BRD = 37,9349 INCHES 2000 = 16,2000 INCHES  
 SCALE = .0005

BETA	=	.000	GP	=	134.000
DE	=	.000	DA	=	.000
X/L	=	.000	L/P	=	4.000
NGT	=	.000	RC	=	2.000

Run No.	440/0	Reul =	.00	Gradient Interval =	-5.00/	5.00
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[illegible]

**WINTER DAYS**

SPED = 4.4119 90. FT. 1000 = 43.5974 100-ES  
 UPED = 19.2896 100-ES 1000 = 1000 100-ES  
 BPED = 37.9249 100-ES 2000 = 16.2070 100-ES  
 SCALE = .0402

13. 14. 15. 16.

00-682141-5550 BAC 100-21

( 32 35 62 , ( 177000 )

### PARAMETRIC DATA

DOF =	4.4119	90. FT.	DOFF =	43.9974	INCHES	BETA =	.0000	DOF =	154.0000
DOF =	19.2699	INCHES	DOFF =	.0000	INCHES	DE =	.0000	DA =	.0000
DOF =	37.9349	INCHES	DOFF =	16.2000	INCHES	DE =	.0000	DA =	4.0000
DOF =	.0000		DOFF =			DE =	.0000	DA =	2.0000

PUN NO. 441 / 0    PVAL = .12    GRADIENT INTERVAL = -5.00 / 5.00

DOF	ALPHA	0	WFM	WDM	CUM	CUM	WTC	WTC	WFO	WC
.110	-3.970	20.15400	.42870	.42470	.42870	.42870	.34870	.34870	2.74440	2.69990
.115	-3.670	19.93200	.42870	.42470	.42870	.42870	.34870	.34870	2.75590	2.71090
.110	.170	20.29000	.42870	.42470	.42870	.42870	.34870	.34870	2.73490	2.69840
.110	5.270	20.20200	.42870	.42470	.42870	.42870	.34870	.34870	2.74210	2.70200
.117	10.470	20.40400	.42870	.42470	.42870	.42870	.34870	.34870	2.70980	2.69980
.117	18.070	20.47400	.42870	.42470	.42870	.42870	.34870	.34870	2.70750	2.69450
.117	18.070	20.57100	.42870	.42470	.42870	.42870	.34870	.34870	2.71180	2.69560
GRADIENT	.07126	.07141	.07113	.07113	.07113	.07113	.07113	.07127	-0.07315	-0.07187

NR-701 ORB B16C507J3612487+CP

(EDM441) ( 29 SEP 73 )

## REFERENCE DATA

BREF = 4.4119 50.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 441/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CF302	MIN	MON	PRT1	PRT0
.116	-3.500	-9.76400	-9.38200	-9.61000	-9.91800	-9.53500	-9.22900	.39100	.38300	.99910	.99910
.115	-3.600	-9.63700	-9.48300	-9.60300	-9.99100	-9.61400	-9.30500	.39100	.38400	.99930	.99910
.116	.100	-9.76200	-9.40700	-9.61300	-9.92100	-9.54900	-9.26600	.39200	.38500	.99880	.99880
.116	5.200	-9.80200	-9.42800	-9.63500	-9.96800	-9.56800	-9.28800	.39200	.38500	.99870	.99890
.117	10.400	-9.66700	-9.30800	-9.53400	-9.84400	-9.45800	-9.15900	.39200	.38500	.99880	.99910
.117	15.600	-9.61500	-9.22700	-9.45900	-9.77200	-9.48800	-9.06600	.39200	.38500	.99930	.99950
.117	18.600	-9.51200	-9.11700	-9.34600	-9.55700	-9.27800	-8.95600	.39200	.38400	.99920	.99920
GRADIENT		.01095	.01427	.01232	.00958	.00743	.00070	.00027	.00041	-.00011	-.00008

NR-701 ORB B16C507J3612487+CP

(EDM441) ( 29 SEP 73 )

## REFERENCE DATA

BREF = 4.4119 50.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 441/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.116	-3.500	20.10400	.99970	.99970	.99950	.99920	.99810	.99850	.99930	.99950	.99960
.115	-3.600	19.93200	.99980	.99980	.99970	.99940	.99830	.99850	.99940	.99970	.99970
.116	.100	20.29300	.99980	.99950	.99870	.99820	.99750	.99870	.99860	.99920	.99940
.116	5.200	20.20200	.99930	.99900	.99830	.99830	.99860	.99520	.99780	.99950	.99960
.117	10.400	20.40400	.99940	.99930	.99810	.99910	.99920	.99420	.99810	.99950	.99950
.117	15.600	20.47400	.99980	.99960	.99960	.99930	.99950	.99620	.99920	.99960	.99960
.117	18.600	20.67100	.99940	.99940	.99940	.99940	.99940	.99770	.99920	.99940	.99940
GRADIENT		.05617	-.00004	-.00007	-.00025	-.00030	-.00019	-.00014	-.00021	-.00011	-.00007



REFERENCE DATA  
MACH = 4.4119 MM.FT. WARP = 43.9974 INCHES  
LIFT = 19.2999 INCHES WARP = .0000 INCHES  
SPD = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0005  
BETA = .000 OPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

RUN NO. 441/ 0 RUL = .12 GRADIENT INTERVAL = -3.00/ 5.00

	ALPHA	Q	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.116	-3.900	20.10400	.99780	.99830	.99980	.99980	.99980	.99940	.99950	.99970
.115	-3.900	19.93200	.99780	.99840	.99980	.99980	.99980	.99940	.99980	.99980
.116	-1.00	20.29000	.99780	.99790	.99970	.99970	.99970	.99820	.99930	.99970
.116	5.200	20.20200	.99880	.99790	.99970	.99970	.99970	.99790	.99970	.99980
.117	10.400	20.40400	.99890	.99810	.99940	.99940	.99940	.99880	.99960	.99960
.117	15.600	20.47400	.99950	.99940	.99980	.99980	.99980	.99930	.99970	.99980
.117	18.600	20.67100	.99940	.99930	.99940	.99930	.99930	.99970	.99940	.99950
GRADIENT	.05617	.07703	-.07432	-.07020	-.06619	-.07026	-.07027	-.07333	-.07247	-.07201

REFERENCE DATA  
MACH = 4.4119 MM.FT. WARP = 43.9974 INCHES  
LIFT = 19.2999 INCHES WARP = .0000 INCHES  
SPD = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0005  
BETA = .000 OPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

RUN NO. 442/ 0 RUL = .12 GRADIENT INTERVAL = -3.00/ 5.00

	ALPHA	Q	W/M	W/M	Q/M	W/M	W/C	M/R1	M/R0	W/C
.116	-3.900	20.01100	.35900	.35100	.35100	.35800	.33100	2.39300	2.34500	.14100
.116	.000	20.19000	.35300	.35000	.35000	.35700	.33100	2.38100	2.33600	.14100
.117	5.200	20.40900	.35900	.35700	.35000	.35700	.33100	2.36700	2.32400	.14200
.116	10.400	20.33800	.35300	.35000	.35000	.35700	.33100	2.37100	2.32680	.14200
.117	15.600	20.53900	.35200	.34800	.35000	.35700	.33100	2.36800	2.31200	.14300
.117	18.600	20.44900	.35100	.34900	.35000	.35700	.33100	2.36800	2.32190	.14200
.117	20.700	20.59900	.35300	.34900	.34900	.35700	.33100	2.35740	2.30880	.14300
GRADIENT	.03971	.07437	-.07029	-.06629	-.06629	-.07029	-.07029	-.07337	-.07237	-.07200

## TABULATED PROPELLSION SOURCE DATA NAAL-T01

DATE 05 DEC 75

(DOM442) ( 29 SEP 75 )

NR-T01 ORB 816C507J3612487+CP

## REFERENCE DATA

SARP = 4.4119 88.FT. 3ARP = 43.5974 INCHES  
 LRP = 19.2999 INCHES 1ARP = .0000 INCHES  
 BRP = 37.9349 INCHES 2ARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 442/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CP81	CP90	CP811	CP812	CP804	CP802	MIN	MON	PRT1	PRT0
.115	-3.500	-6.94100	-6.81800	-6.82700	-7.05670	-6.73200	-6.49900	.33200	.32400	.99930	.99910
.116	.000	-6.92100	-6.80600	-6.80200	-7.04000	-6.71300	-6.49800	.33100	.32400	.99880	.99813
.117	5.200	-6.81800	-6.49200	-6.69700	-6.94000	-6.39900	-6.38400	.33100	.32400	.99880	.99900
.118	10.400	-6.79970	-6.48300	-6.91300	-6.91300	-6.57700	-6.28400	.33100	.32400	.99920	.99940
.119	10.400	-6.74200	-6.39700	-6.62800	-6.85870	-6.51000	-6.28400	.33200	.32400	.99910	.99920
.117	15.800	-6.75400	-6.42800	-6.64100	-6.86700	-6.51000	-6.23800	.33100	.32400	.99940	.99930
.117	18.700	-6.69800	-6.38200	-6.58400	-6.81100	-6.48800	-6.23800	.33100	.32400	.99930	.99930
GRADIENT		.00571	.00286	.00714	.00457	.00543	.00029	-.00029	.00000	-.00014	-.00011

(EDM442) ( 29 SEP 75 )

NR-T01 ORB 816C507J3612487+CP

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

## REFERENCE DATA

SARP = 4.4119 88.FT. 3ARP = 43.5974 INCHES  
 LRP = 19.2999 INCHES 1ARP = .0000 INCHES  
 BRP = 37.9349 INCHES 2ARP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 442/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CP81	CP90	CP811	CP812	CP813	CP814	CP815	CP816	CP817	CP818	CP819
.115	-3.500	20.01100	.99980	.99980	.99980	.99980	.99930	.99830	.99880	.99940	.99960	.99960
.116	.000	20.18000	.99950	.99940	.99940	.99910	.99820	.99750	.99820	.99850	.99900	.99940
.117	5.200	20.40700	.99920	.99900	.99830	.99820	.99820	.99750	.99750	.99780	.99840	.99960
.118	10.400	20.33600	.99930	.99940	.99930	.99930	.99940	.99940	.99880	.99940	.99970	.99990
.119	10.400	20.33500	.99930	.99930	.99910	.99910	.99920	.99920	.99870	.99840	.99950	.99990
.117	15.800	20.44300	.99960	.99960	.99960	.99960	.99950	.99950	.99830	.99930	.99960	.99960
.117	18.700	20.39300	.99940	.99940	.99940	.99940	.99940	.99940	.99820	.99920	.99940	.99940
GRADIENT		.00971	-.00009	-.00011	-.00029	-.00034	-.00023	-.00017	-.00017	-.00026	-.00017	-.00006



TABULATED PROPULSION SOURCE DATA NAAL-701

DATE 05 DEC 73

(FDN442) ( 29 SEP 73 )

NR-701 ORB 816C507J3G124674G

REFERENCE DATA

BREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES

LREF = 19.2999 INCHES YMRP = .0000 INCHES

BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES

SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000

DE = .000 DA = .000

X/L = .000 LIP = 4.000

NBT = .000 RD = 2.000

RUN NO. 442/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.115	-3.500	20.01100	.99780	.99840	.99940	.99970	.99980	.99890	.99940	.99950	.99970
.116	.000	20.15000	.99770	.99770	.99840	.99900	.99950	.99820	.99820	.99820	.99960
.117	5.270	20.40750	.99880	.99880	.99880	.99890	.99930	.99730	.99820	.99970	.99980
.116	10.400	20.33800	.99920	.99930	.99930	.99960	.99960	.99820	.99910	.99980	.99980
.117	10.400	20.53500	.99890	.99920	.99920	.99930	.99940	.99870	.99890	.99960	.99960
.117	15.600	20.44300	.99940	.99940	.99950	.99950	.99960	.99840	.99930	.99970	.99970
.117	18.700	20.59300	.99940	.99930	.99930	.99940	.99940	.99790	.99970	.99950	.99950
GRADIENT		.03971	-.00003	-.00020	-.00029	-.00020	-.00019	-.00026	-.00034	-.00009	-.00003

(CDN443) ( 29 SEP 73 )

NR-701 ORB 816C507J3G124674G

REFERENCE DATA

BREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES

LREF = 19.2999 INCHES YMRP = .0000 INCHES

BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES

SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000

DE = .000 DA = .000

X/L = .000 LIP = 4.000

NBT = .000 RD = 2.000

RUN NO. 443/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MERI	MERO	WC
.116	-3.500	20.17400	.26800	.26800	.26800	.26600	.26600	.26100	1.88110	1.84370	.14100
.116	.000	20.01100	.26700	.26700	.27000	.26700	.26600	.26100	1.88610	1.85150	.14100
.116	5.200	20.33100	.26700	.26500	.26800	.26300	.26600	.26100	1.87200	1.84040	.14200
.116	10.400	20.30500	.26800	.26300	.26800	.26300	.26700	.26100	1.87650	1.84010	.14200
.117	15.500	20.46200	.26900	.26600	.26800	.26600	.26800	.26200	1.87930	1.84170	.14200
.117	18.600	20.54600	.27000	.26700	.27000	.26700	.26700	.26200	1.87480	1.83560	.14300
GRADIENT		-.02472	.00056	.00028	.00056	.00028	-.00000	.00020	.00139	.00027	-.00000

DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3C12487+CP

(DDN443) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 443/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPSI1	CPSI2	CPSO1	CPSO2	MIN	MON	PRTI	PRT0
.116	-3.500	-3.77000	-3.60600	-3.70600	-3.83300	-3.69300	-3.52900	.25570	.24900	.99930	.99970
.116	.100	-3.85100	-3.66800	-3.77900	-3.92400	-3.73900	-3.59700	.25500	.25000	.99880	.99880
.116	5.200	-3.79800	-3.60300	-3.72800	-3.86800	-3.67000	-3.53500	.25500	.25000	.99860	.99890
.116	10.400	-3.76100	-3.55400	-3.69600	-3.82600	-3.63000	-3.47800	.25500	.25000	.99930	.99930
.117	15.500	-3.75900	-3.56700	-3.69400	-3.82400	-3.64900	-3.48500	.25600	.25100	.99930	.99930
.117	18.600	-3.70300	-3.51600	-3.63900	-3.76800	-3.59900	-3.43400	.25600	.25000	.99950	.99950
GRADIENT		-.02250	-.01722	-.02028	-.02528	-.01556	-.01889	.00000	.00028	-.00014	-.00026

NR-701 ORB B16C507J3C12487+CP

(EDN443) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 443/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTI1	PRTI2	PRTI3	PRTI4	PRTI5	PRTI6	PRTI7	PRTI8	PRTI9
.116	-3.500	20.17400	.99970	.99970	.99950	.99930	.99850	.99880	.99930	.99930	.99950
.116	.100	20.08500	.99960	.99940	.99860	.99810	.99780	.99830	.99840	.99970	.99940
.116	5.200	20.33100	.99890	.99860	.99820	.99810	.99830	.99720	.99760	.99920	.99940
.116	10.400	20.30500	.99940	.99940	.99930	.99930	.99930	.99780	.99860	.99960	.99960
.117	15.500	20.46200	.99940	.99940	.99940	.99940	.99930	.99870	.99920	.99940	.99940
.117	18.600	20.54600	.99950	.99950	.99950	.99950	.99950	.99890	.99940	.99950	.99950
GRADIENT		-.02472	-.00003	-.00008	-.00025	-.00033	-.00025	-.00014	-.00025	-.00014	-.00023



DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3G12487+GP

(FDN443) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

PARAMETRIC DATA

RUN NO. 443/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.116	-3.500	20.17400	.99780	.99830	.99930	.99960	.99970	.99980	.99920	.99930	.99950
.116	.100	20.10800	.99780	.99790	.99850	.99900	.99950	.99810	.99830	.99920	.99960
.116	5.200	20.33100	.99860	.99860	.99870	.99880	.99910	.99760	.99810	.99950	.99960
.116	10.400	20.30500	.99900	.99910	.99940	.99950	.99950	.99840	.99900	.99970	.99970
.117	15.500	20.46200	.99930	.99920	.99930	.99940	.99940	.99860	.99900	.99950	.99950
.117	18.600	20.54600	.99950	.99950	.99950	.99950	.99950	.99860	.99920	.99960	.99970
GRADIENT	-.12472		.00000	-.00011	-.00022	-.00017	-.00006	-.00019	-.00025	-.00003	.00003

NR-701 ORB B16C507J3G12487+GP

(CDN444) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

PARAMETRIC DATA

RUN NO. 444/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WCM	QWIM	QWCM	WIC	WOC	MERI	MERO	WC
.115	-3.500	19.95600	.18700	.18500	.18700	.18500	.19100	.18700	1.35440	1.32640	.14100
.116	.100	20.12000	.18700	.18500	.18700	.18500	.19000	.18700	1.34490	1.32300	.14100
.116	5.200	20.35500	.18600	.18500	.18600	.18500	.19000	.18700	1.33730	1.31730	.14200
.117	10.400	20.46400	.18700	.18600	.18700	.18600	.19200	.18800	1.34540	1.31990	.14200
.117	15.600	20.43000	.18800	.18600	.18800	.18600	.19200	.18800	1.34710	1.32040	.14200
.117	18.700	20.62400	.18700	.18500	.18700	.18500	.19100	.18700	1.33780	1.31160	.14300
GRADIENT	.04556		-.00000	-.00000	-.00000	-.00000	-.00028	-.00000	-.00264	-.00094	-.00000

NR-701 ORB B16C507J3G12A87+CP

(DDM444) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 444/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPSI1	CPSI2	CPSO1	CPSO2	MIN	MON	PRT1	PRT0
.115	-3.500	-1.45100	-1.36700	-1.42300	-1.47500	-1.41000	-1.32400	.17900	.17500	.99930	.99910
.116	.100	-1.48300	-1.40200	-1.49000	-1.51500	-1.44000	-1.35400	.17800	.17500	.99870	.99870
.116	5.200	-1.45900	-1.35900	-1.42600	-1.49100	-1.39600	-1.32200	.17800	.17800	.99860	.99890
.117	10.400	-1.42700	-1.32800	-1.39500	-1.45800	-1.37100	-1.28500	.18000	.17600	.99920	.99930
.117	15.600	-1.39600	-1.30200	-1.36700	-1.42500	-1.35200	-1.28200	.18000	.17600	.99930	.99950
.117	18.700	-1.37400	-1.27900	-1.34200	-1.40600	-1.32800	-1.23100	.17900	.17600	.99940	.99940
GRADIENT		-.00889	-.00972	-.00750	-.01020	-.00833	-.00111	-.00028	.00020	-.00017	-.00011

NR-701 ORB B16C507J3G12A87+CP

(EDM444) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 444/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.115	-3.500	19.95600	.99970	.99970	.99950	.99920	.99880	.99880	.99920	.99940	.99950
.116	.100	20.12000	.99940	.99920	.99840	.99810	.99770	.99820	.99830	.99880	.99910
.116	5.200	20.35500	.99870	.99850	.99820	.99800	.99740	.99740	.99770	.99820	.99930
.117	10.400	20.46400	.99930	.99920	.99920	.99920	.99920	.99810	.99870	.99920	.99950
.117	15.600	20.43000	.99960	.99960	.99960	.99950	.99950	.99910	.99940	.99960	.99960
.117	18.700	20.62400	.99950	.99950	.99950	.99950	.99950	.99920	.99930	.99950	.99950
GRADIENT		.04556	-.00008	-.00014	-.00031	-.00031	-.00025	-.00017	-.00025	-.00017	-.00011



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TABULATED PROPELLSION SOURCE DATA MAAL-701

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NR-701 ORB B16C507J3C12W87+CP

(FDM444) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARR = 43.5974 INCHES  
LREF = 19.2999 INCHES YARR = .0000 INCHES  
BREF = 37.9349 INCHES ZARR = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

RUN NO. 444/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.115	-3.500	19.95600	.99820	.99860	.99930	.99960	.99970	.99900	.99930	.99940	.99950
.116	.100	20.12000	.99780	.99780	.99830	.99880	.99940	.99800	.99820	.99970	.99950
.117	5.200	20.35500	.99870	.99870	.99870	.99880	.99890	.99770	.99820	.99950	.99970
.117	10.400	20.46400	.99800	.99910	.99930	.99940	.99940	.99860	.99970	.99950	.99960
.117	15.600	20.43000	.99950	.99950	.99950	.99960	.99960	.99890	.99930	.99970	.99980
.117	18.700	20.62400	.99940	.99940	.99940	.99950	.99940	.99970	.99930	.99950	.99960
GRADIENT	.04556		-.00011	-.00022	-.00028	-.00022	-.00008	-.00028	-.00033	-.00011	.00000

NR-701 ORB B16C507J3C12W87+CP

(CDN445) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARR = 43.5974 INCHES  
LREF = 19.2999 INCHES YARR = .0000 INCHES  
BREF = 37.9349 INCHES ZARR = 16.2000 INCHES  
SCALE = .0405

BETA = -10.000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

RUN NO. 445/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WFM	WOM	QWFM	QWOM	WTC	WOC	MFRI	MFRO	WC
.115	-3.500	20.00900	.18700	.18700	.18700	.18700	.19100	.18900	1.35350	1.33580	.14100
.116	.100	20.16100	.42400	.42500	.42500	.42500	.38700	.38200	2.73580	2.70270	.14100
.116	.100	20.08900	.42400	.42400	.42400	.42400	.38700	.38200	2.74280	2.70820	.14100
.116	.100	20.15100	.18600	.18600	.18600	.18600	.19100	.18870	1.34920	1.32930	.14100
GRADIENT	.00917		-.00014	-.00028	-.00028	-.00028	.00000	-.00020	.00037	-.00011	-.00000

NR-701 ORB B16C507J3G12W87\*CP

(DDM445) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = -10.000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 445/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.115	-3.500	-1.39300	-1.32400	-1.35200	-1.43400	-1.34700	-1.30100	.17900	.17600	.99980	.99980
.116	-3.500	-9.65000	-9.33400	-9.47800	-9.82200	-9.47500	-9.19400	.39000	.38400	.99950	.99970
.116	.100	-9.68500	-9.37600	-9.51900	-9.85200	-9.52100	-9.23200	.39000	.38400	.99970	.99970
.116	.100	-1.38600	-1.31300	-1.34400	-1.42700	-1.34100	-1.28400	.17900	.17600	.99970	.99970
GRADIENT		-1.01389	-1.01431	-1.01472	-1.01519	-1.01556	-1.01292	.00000	.00000	.00001	-.00001

NR-701 ORB B16C507J3G12W87\*CP

(EDM445) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = -10.000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 445/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.115	-3.500	20.00900	.99970	.99980	.99980	.99980	.99980	.99970	.99970	.99980	.99980
.116	-3.500	20.16100	.99920	.99930	.99970	.99970	.99970	.99980	.99960	.99970	.99970
.116	.100	20.08500	.99980	.99970	.99970	.99970	.99970	.99960	.99980	.99970	.99970
.116	.100	20.15100	.99970	.99970	.99970	.99970	.99970	.99970	.99970	.99970	.99970
GRADIENT		.00917	.00006	.00001	-.00001	-.00001	-.00001	.00011	.00000	-.00001	-.00001



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TABULATED PROPLUSION SOURCE DATA NAAL-701

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NR-701 ORB 816C507J36124674CP

(FDM445) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = -10.000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 445/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.115	-3.500	20.00900	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980	.99980
.116	-3.500	20.16100	.99970	.99970	.99970	.99970	.99980	.99970	.99970	.99980	.99980
.116	.100	20.08500	.99970	.99970	.99980	.99980	.99980	.99970	.99970	.99970	.99980
.116	.100	20.15100	.99970	.99970	.99980	.99970	.99980	.99970	.99970	.99970	.99980
GRADIENT	.00917	-.00001	-.00001	-.00001	-.00004	-.00004	-.00001	-.00001	-.00001	-.00003	-.00001

NR-701 ORB 816C507J36124674CP

(CON446) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 446/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WM	WOM	QWM	WIC	WOC	MFRI	MFRO	WC
.163	-3.500	40.11700	.19900	.19700	.19500	.20300	.20700	1.02010	1.00300	.19900
.164	.100	40.41300	.19700	.19400	.19300	.20100	.19800	1.00490	.99170	.20000
.164	5.300	40.64900	.19700	.19600	.19500	.20100	.20000	1.00600	1.00120	.20000
.165	10.500	41.04100	.19900	.19800	.19800	.20400	.20100	1.01450	.99750	.20100
.165	15.700	41.11100	.20000	.19800	.19600	.20500	.20100	1.01800	.99760	.20100
.166	18.800	41.44000	.19900	.19700	.19500	.20500	.20100	1.01190	.99250	.20200
GRADIENT	.08222	-.00056	-.00028	-.00056	-.00056	-.00056	-.00056	-.00422	-.00314	.00028

## TABULATED PROPULSION SOURCE DATA NAAL-701

(DON446) ( 29 SEP 73 )

NR-701 ORB 816C507J3G12M87+CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 446/ 0 R/V/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPSI1	CPSI2	CPSO1	CPSO2	MIN	MON	PRT1	PRT0
.16	-3.500	-4.0000	-3.5700	-3.8400	-4.1500	-3.8100	-3.400	.19000	.18600	.99880	.99880
.164	.100	-4.3500	-3.9600	-4.1600	-4.4600	-4.1600	-3.700	.18800	.18500	.99740	.99750
.164	5.300	-4.4000	-3.7100	-4.2000	-4.6000	-3.9000	-3.500	.18800	.18700	.99740	.99840
.165	10.500	-3.9700	-3.4400	-3.7800	-4.1500	-3.6800	-3.190	.19100	.18700	.99860	.99870
.165	15.700	-3.6800	-3.3100	-3.5000	-3.8700	-3.4500	-2.890	.19200	.18800	.99930	.99920
.166	18.800	-3.6900	-3.1800	-3.5100	-3.8600	-3.4700	-2.890	.19100	.18700	.99900	.99900
GRADIENT		-0.0972	-0.0183	-0.0889	-0.0183	-0.0972	-0.1139	-0.0756	-0.0728	-0.00739	-0.00356

NR-701 ORB 816C507J3G12M87+CP

(EDN446) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 446/ 0 R/V/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.163	-3.500	40.11700	.99970	.99970	.99920	.99880	.99770	.99840	.99970	.99970	.99890
.164	.100	40.41300	.99900	.99840	.99710	.99640	.99560	.99680	.99690	.99760	.99810
.164	5.300	40.64900	.99730	.99710	.99670	.99670	.99700	.99520	.99590	.99850	.99910
.165	10.500	41.04100	.99870	.99860	.99850	.99860	.99860	.99680	.99770	.99920	.99920
.165	15.700	41.11100	.99940	.99940	.99930	.99930	.99930	.99870	.99910	.99940	.99940
.166	18.800	41.44000	.99900	.99900	.99900	.99900	.99900	.99850	.99890	.99970	.99970
GRADIENT		.08222	-0.0019	-0.0036	-0.0058	-0.0067	-0.0058	-0.0044	-0.0058	-0.00739	-0.00022



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TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3C12A87+CP

(FDM446) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 90.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 CA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 446/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.163	-3.500	40.11700	.99740	.99800	.99910	.99950	.99970	.99980	.99990	.99910	.99920
.164	.100	40.41300	.99590	.99620	.99690	.99770	.99800	.99830	.99850	.99810	.99880
.164	5.300	40.64900	.99810	.99810	.99810	.99820	.99830	.99840	.99730	.99950	.99970
.165	10.500	41.04100	.99810	.99840	.99870	.99890	.99900	.99780	.99830	.99930	.99940
.165	15.700	41.11100	.99910	.99910	.99920	.99940	.99940	.99830	.99890	.99950	.99960
.166	18.800	41.44700	.99900	.99890	.99890	.99900	.99900	.99810	.99870	.99920	.99920
GRADIENT	.08222	-.00042	-.00050	-.00061	-.00050	-.00050	-.00025	-.00064	-.00069	-.00028	-.00011

## REFERENCE DATA

SREF = 4.4119 90.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 CA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

NR-701 ORB B16C507J3C12A87+CP

(CDM447) ( 29 SEP 73 )

RUN NO. 447/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WCC	NERI	NERO	WC
.164	-3.500	40.27200	.27800	.27500	.27700	.27400	.27800	.27200	1.39280	1.36680	.19900
.164	.100	40.40200	.27700	.27600	.27600	.27400	.27600	.27200	1.38220	1.36170	.19900
.165	5.300	40.81100	.28100	.28000	.28000	.27900	.27700	.27400	1.38230	1.36520	.20000
.165	10.500	40.92000	.27800	.27500	.27600	.27400	.27800	.27200	1.38220	1.35550	.20100
.166	15.700	41.30000	.27900	.27600	.27700	.27400	.27800	.27200	1.37850	1.35130	.20200
.166	18.800	41.47200	.27900	.27600	.27800	.27500	.27800	.27300	1.37590	1.34900	.20200
GRADIENT	.03611	-.00028	-.00028	.00028	-.00028	-.00036	-.00036	-.00000	-.00294	-.00142	-.00000

NR-701 ORB B16C507J3G12M87+CP

(DNM447) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 447/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

WACH	ALPHA	CP51	CP50	CP511	CP512	CP501	CP502	MIN	MON	PRT1	PRT0
.164	-3.500	-1.62700	-1.53700	-1.59400	-1.66100	-1.58000	-1.49300	.26500	.26000	.99870	.99860
.164	.100	-1.65100	-1.56900	-1.61200	-1.69000	-1.60700	-1.53100	.26400	.25900	.99760	.99760
.165	5.300	-1.66700	-1.55800	-1.62700	-1.70800	-1.59400	-1.52300	.26500	.26100	.99730	.99810
.165	10.500	-1.58000	-1.47600	-1.55300	-1.62500	-1.51800	-1.43400	.26500	.25900	.99870	.99890
.166	15.700	-1.55900	-1.45600	-1.52300	-1.59400	-1.50100	-1.41000	.26500	.26000	.99970	.99970
.166	18.800	-1.55300	-1.44800	-1.51700	-1.58800	-1.49400	-1.40200	.26500	.26000	.99890	.99900
GRADIENT	.00667	-.00089	-.00050	-.00050	-.00086	-.000750	-.01056	-.00028	-.00028	-.00031	-.00028

NR-701 ORB B16C507J3G12M87+CP

(EDM447) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 447/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.500	40.27200	.99970	.99970	.99930	.99880	.99730	.99810	.99890	.99900	.99890
.164	.100	40.40200	.99930	.99880	.99720	.99640	.99550	.96670	.99700	.99780	.99830
.165	5.300	40.61100	.99750	.99700	.99650	.99650	.99700	.99190	.99560	.99830	.99890
.165	10.500	40.92000	.99890	.99880	.99870	.99870	.99880	.99450	.99780	.99930	.99920
.166	15.700	41.30000	.99920	.99920	.99910	.99910	.99900	.99800	.99880	.99920	.99900
.166	18.800	41.47200	.99910	.99910	.99900	.99900	.99900	.99820	.99880	.99900	.99890
GRADIENT	.00611	-.00011	-.00025	-.00025	-.00058	-.00067	-.00050	-.00039	-.00053	-.00033	-.00017

TABULATED PROPELLSION SOURCE DATA NAAL-701

DATE 08 DEC 75

NR-701 CRB 816C507J3G12A87+CP

(PDN447) ( 29 SEP 75 )

REFERENCE DATA

SRF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 447/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.164	-3.500	40.27200	.99690	.99760	.99900	.99930	.99970	.99830	.99890	.99890	.99910
.164	.100	40.40200	.99610	.99610	.99690	.99770	.99910	.99810	.99850	.99830	.99910
.165	5.300	40.81100	.99760	.99770	.99780	.99790	.99820	.99590	.99680	.99910	.99940
.165	10.500	40.92000	.99830	.99840	.99890	.99920	.99920	.99780	.99850	.99930	.99960
.166	15.700	41.30000	.99890	.99890	.99900	.99910	.99910	.99780	.99860	.99930	.99940
.166	18.800	41.47200	.99900	.99900	.99900	.99910	.99920	.99790	.99870	.99920	.99930
GRADIENT	.03611		-.00019	-.00042	-.00058	-.00050	-.00017	-.00067	-.00067	-.00017	.00000

NR-701 CRB 816C507J3G12A87+CP

(CDN448) ( 29 SEP 75 )

REFERENCE DATA

SRF = 4.4119 SQ.FT. XGRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 448/ 0 RN/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WTH	WOM	OWTH	OWOM	WTC	WOC	MPRI	MPRO	WC
.163	-3.500	40.18300	.36300	.36000	.36100	.35900	.34600	.34000	1.75720	1.70760	.19900
.164	.100	40.40600	.36200	.36100	.36100	.35900	.34500	.33900	1.72740	1.70150	.19900
.165	5.300	40.76500	.36200	.36000	.36200	.35900	.34500	.34100	1.72350	1.70090	.20000
.165	10.500	40.92000	.36300	.36200	.36100	.36000	.34700	.34100	1.72680	1.69950	.20100
.166	15.700	41.27000	.36400	.36200	.36200	.36000	.34700	.34100	1.72330	1.69250	.20100
.166	18.900	41.32000	.36300	.36100	.36100	.35900	.34700	.34100	1.72100	1.69150	.20100
GRADIENT	.06250		-.00028	.00028	-.00000	.00000	-.00028	-.00028	-.00022	-.00069	-.00000

NR-701 ORB 816C507J3G12J87+CP

(EDM448) ( 29 SEP 73 )

## REFERENCE DATA

SRP = 4.4119 50.FT. XGRP = 43.5974 INCHES  
 LRP = 19.2999 INCHES YGRP = .0000 INCHES  
 BRP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 448/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS04	CPS02	MIN	MON	PRT1	PRT0
.163	-3.500	-3.11900	-3.04400	-3.13500	-3.25200	-3.11000	-2.97800	.33900	.33300	.99860	.99860
.164	.100	-3.26400	-3.36100	-3.14100	-3.26700	-3.12200	-3.00100	.33800	.33200	.99760	.99770
.165	5.300	-3.19100	-3.30300	-3.12700	-3.25500	-3.08900	-2.97600	.33900	.33400	.99750	.99820
.165	10.500	-3.14600	-2.99100	-3.08800	-3.20900	-3.05500	-2.92600	.34000	.33400	.99860	.99880
.166	15.700	-3.10500	-2.94400	-3.04700	-3.16400	-3.01200	-2.87500	.34100	.33400	.99900	.99910
.166	18.900	-3.06800	-2.93500	-3.03000	-3.14800	-3.00400	-2.86700	.34100	.33400	.99910	.99910
GRADIENT		-1.00306	-1.00472	-1.00167	-1.00417	-1.00333	-1.00639	-1.00328	-1.00328	-1.00328	-1.00325

NR-701 ORB 816C507J3G12J87+CP

(EDM448) ( 29 SEP 73 )

## REFERENCE DATA

SRP = 4.4119 50.FT. XGRP = 43.5974 INCHES  
 LRP = 19.2999 INCHES YGRP = .0000 INCHES  
 BRP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 448/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS14	CPS15	MIN	MON	PRT1	PRT0
.163	-3.500	40.18300	.99970	.99920	.99860	.99860	.99860	.99770	.99480	.99900	.99830
.164	.100	40.40800	.99930	.99890	.99830	.99830	.99830	.99660	.99690	.99800	.99850
.165	5.300	40.76500	.99790	.99730	.99660	.99710	.99710	.99480	.99560	.99870	.99900
.165	10.500	40.92300	.99890	.99870	.99860	.99870	.99870	.99580	.99740	.99930	.99910
.166	15.700	41.27000	.99920	.99920	.99920	.99910	.99910	.99770	.99870	.99920	.99910
.166	18.900	41.32000	.99930	.99920	.99920	.99920	.99920	.99820	.99970	.99920	.99910
GRADIENT		.06250	-1.00011	-1.00022	-1.00058	-1.00064	-1.00044	-1.00031	-1.00053	-1.00028	-1.00011



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TABULATED PRODUCTION SOURCE DATA NAAL-T01

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NR-T01 ORB 816C507J3612487+CP

(CDM449) ( 29 SEP 75 )

REFERENCE DATA

BRDF = 4.4119 80.FT. WARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 QA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 448/ 0 RM/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.163	-3.500	40.18300	.99650	.99740	.99900	.99950	.99970	.99840	.99890	.99910	.99940
.164	.100	40.40800	.99600	.99600	.99700	.99800	.99920	.99820	.99850	.99880	.99930
.165	5.300	40.746500	.99790	.99790	.99790	.99870	.99890	.99580	.99680	.99930	.99950
.165	10.500	40.98200	.99820	.99840	.99890	.99920	.99920	.99750	.99840	.99950	.99980
.166	15.700	41.27000	.99900	.99910	.99910	.99920	.99920	.99800	.99880	.99940	.99940
.166	18.900	41.32000	.99920	.99920	.99920	.99930	.99920	.99770	.99880	.99940	.99950
GRADIENT	.06250		-.00014	-.00739	-.00056	-.00742	-.00714	-.00061	-.00067	-.00014	-.00003

REFERENCE DATA

BRDF = 4.4119 80.FT. WARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 QA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 449/ 0 RM/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	WTH	WCH	QVTH	QVCH	WTC	WCC	WFR1	WFR0	WC
.164	-3.500	40.28700	.43200	.42900	.43000	.42700	.39200	.38600	1.97160	1.93870	.19900
.164	.100	40.38500	.43200	.43000	.43100	.42800	.39200	.38600	1.96750	1.93790	.19900
.164	5.300	40.67600	.43100	.42900	.43000	.42700	.39200	.38700	1.96160	1.93380	.20000
.165	10.500	40.86900	.43100	.42900	.43000	.42700	.39300	.38700	1.96150	1.92950	.20000
.166	15.700	41.22600	.43100	.42800	.42900	.42600	.39300	.38700	1.95340	1.92070	.20100
.166	18.900	41.33200	.43100	.42900	.42900	.42700	.39400	.38700	1.95300	1.92110	.20100
GRADIENT	.02722		-.00000	.00028	.00028	.00028	.00000	.00000	-.00014	-.00022	-.00000

NR-T01 ORB 816C507J3612487+CP

(CDM449) ( 29 SEP 75 )

## TABULATED PROJECTION SOURCE DATA NAAL-701

(DDM449) ( 29 SEP 75 )

NR-701 ORB B16C507J3612487+CP

## REFERENCE DATA

SREF = 4.4119 90.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0005

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 449/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	CPSI	CPSO	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.164	-3.500	-4.54000	-4.34900	-4.47200	-4.62400	-4.42500	-4.26200	.39500	.38700	.99850	.99850
.164	.100	-4.59200	-4.38000	-4.50200	-4.66400	-4.45500	-4.30500	.39500	.38800	.99760	.99780
.164	5.300	-4.54800	-4.33800	-4.46300	-4.62900	-4.41100	-4.26500	.39500	.38800	.99760	.99820
.165	10.500	-4.48000	-4.26900	-4.40300	-4.55800	-4.34800	-4.18400	.39600	.38800	.99870	.99890
.166	15.700	-4.42000	-4.21600	-4.34400	-4.49500	-4.30100	-4.13100	.39600	.38700	.99900	.99920
.166	18.900	-4.41100	-4.21400	-4.33500	-4.48700	-4.30000	-4.12800	.39600	.38800	.99910	.99910
GRADIENT		-1.00944	-1.01028	-1.00778	-1.01111	-1.00833	-1.01194	.00200	.00024	-.00025	-.00019

NR-701 ORB B16C507J3612487+CP

(EDM449) ( 29 SEP 75 )

## REFERENCE DATA

SREF = 4.4119 90.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0005

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 449/ 0 RV/L = .16 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.500	40.28000	.99980	.99980	.99910	.99850	.99660	.99760	.99870	.99900	.99890
.164	.100	40.36900	.99950	.99890	.99710	.99610	.99520	.99650	.99680	.99800	.99850
.164	5.300	40.67800	.99820	.99760	.99670	.99660	.99700	.99480	.99560	.99880	.99910
.165	10.500	40.86800	.99910	.99920	.99880	.99880	.99890	.99560	.99750	.99950	.99930
.166	15.700	41.22800	.99920	.99920	.99910	.99910	.99910	.99760	.99870	.99920	.99970
.166	18.900	41.33200	.99930	.99930	.99930	.99920	.99920	.99800	.99900	.99920	.99910
GRADIENT		.02722	-.01006	-.00019	-.00056	-.01067	-.00039	-.00031	-.00053	-.00028	-.00011

TABLE 1. DATA SOURCE DATA NAAL-701

( 29 SEP 73 )

NR-701 ORB B16C5D7J3G12A87+CP

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
OE	=	.000	DA	=	.000
X/L	=	.000	LTP	=	4.000
NBT	=	.000	RD	=	2.000

Parameter	Estimate	Standard Error	t-Statistic	p-Value	Gradient Interval
Intercept	1.00	0.00	100.00	0.00	1.00/0.00 = 100.00/0.00
Age	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Gender	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Education	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Income	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Health	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Marital Status	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Occupation	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Religion	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Political Affiliation	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Life Satisfaction	0.00	0.00	0.00	1.00	0.00/0.00 = 0.00/0.00
Overall Mean	1.00	0.00	100.00	0.00	1.00/0.00 = 100.00/0.00

## REF: REFERENCE DATA

SRF =	4.4119 98.FT.	MRP =	43.5974 INCHES
REF =	19.2999 INCHES	YRP =	.0000 INCHES
BRF =	37.9349 INCHES	ZRP =	16.2000 INCHES
SCALE =	.0405		

RUN NO. 449/0 RNL =

[illegible]

(05/NOV/2019) (29 SEP' 73)

NP-201 CER 816C507J3G12487+CP

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.0000
DE	=	.000	DA	=	.000
XL	=	.000	LTP	=	4.0000
NBT	=	.000	RD	=	2.0000

20 GRADIENT INTERVAL = -5.00/ 5.00

## REFERENCE DATA

SRF =	4.4119 SQ.FT.	YARP =	43.9974 INCHES
URF =	19.2999 INCHES	YARP =	.0000 INCHES
SRF =	37.9349 INCHES	ZARP =	16.2000 INCHES
SCALE =	.0405		

RUN NO. 450/0 RNL =

[illegible]

NR-701 ORB B16C507J3612-87+GP

(DON450) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 450/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPS11	CPS12	CPS01	CP902	MIN	MON	PRT1	PRT0
.200	-3.500	-2.81400	-2.69300	-2.76200	-2.86600	-2.75100	-2.63500	.39900	.39200	.99830	.99810
.201	.100	-2.83600	-2.71000	-2.78000	-2.89200	-2.76100	-2.65800	.39800	.39100	.99670	.99680
.202	5.300	-2.83100	-2.67200	-2.77400	-2.88800	-2.72100	-2.62300	.40000	.39200	.99660	.99770
.203	10.600	-2.76800	-2.61600	-2.71500	-2.82100	-2.67100	-2.56000	.40000	.39200	.99840	.99870
.204	15.900	-2.73000	-2.58100	-2.67800	-2.78300	-2.64100	-2.52200	.40100	.39200	.99890	.99880
.205	19.000	-2.71300	-2.56400	-2.66100	-2.76600	-2.62400	-2.50500	.40100	.39200	.99890	.99880
GRADIENT		-.00611	-.00472	-.00500	-.00722	-.00278	-.00639	-.00028	-.00028	-.00044	-.00036

NR-701 ORB B16C507J3612-87+GP

(EDN450) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 450/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.200	-3.500	60.40800	.99990	.99980	.99910	.99830	.99590	.99730	.99870	.99880	.99870
.201	.100	60.69100	.99930	.99860	.99610	.99480	.99330	.99540	.99590	.99720	.99800
.202	5.300	61.16700	.99700	.99630	.99520	.99510	.99580	.99270	.99380	.99830	.99910
.203	10.600	61.43300	.99880	.99870	.99850	.99890	.99860	.99470	.99680	.99940	.99940
.204	15.900	62.02300	.99910	.99910	.99900	.99900	.99890	.99730	.99850	.99910	.99970
.205	19.000	62.25900	.99900	.99900	.99900	.99900	.99890	.99770	.99870	.99900	.99890
GRADIENT		.07661	-.00017	-.00033	-.00083	-.00097	-.00072	-.00053	-.00078	-.00044	-.00019



DATE 05 DEC 73

(FDM450) ( 29 SEP 73 )

NR-701 ORB B16C507J3612W87\*GP

REFERENCE DATA

SREF = 4.4119 SR.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 450/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.200	-3.500	60.40800	.99510	.99630	.99880	.99950	.99980	.99760	.99860	.99880	.99920
.201	.100	60.69100	.99440	.99430	.99570	.99690	.99890	.99450	.99500	.99600	.99910
.202	5.300	61.16700	.99710	.99720	.99720	.99740	.99800	.99420	.99570	.99930	.99970
.203	10.600	61.43300	.99780	.99810	.99890	.99920	.99930	.99670	.99810	.99960	.99970
.204	15.900	62.02300	.99870	.99870	.99890	.99900	.99910	.99690	.99820	.99940	.99940
.205	19.000	62.23900	.99890	.99890	.99890	.99900	.99910	.99660	.99840	.99920	.99930
GRADIENT	.07861	.07019	-.00056	-.00056	-.00083	-.00072	-.00025	-.00086	-.00100	-.00022	-.00073

NR-701 ORB B16C507J3612W87\*GP

(FDM451) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SR.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 451/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	W/M	W/M	W/M	W/M	W/M	W/M	W/M	W/M	W/M
.200	-3.500	60.27900	.36890	.36890	.36890	.36400	.35100	.34600	.34760	.34760	.34200
.201	.100	60.77700	.36890	.36700	.36700	.36400	.35100	.34700	.34760	.34760	.34300
.202	5.400	61.02300	.36890	.36700	.36700	.36400	.35100	.34700	.34760	.34760	.34400
.203	10.600	61.43600	.36890	.36700	.36700	.36400	.35100	.34700	.34760	.34760	.34500
.204	15.900	62.24400	.37000	.36700	.36700	.36400	.35300	.34700	.34760	.34760	.34600
.205	19.000	62.34500	.37000	.36700	.36700	.36400	.35300	.34700	.34760	.34760	.34600
GRADIENT	.13833	.00000	-.00028	-.00028	-.00028	-.00028	.00028	.00028	.00028	.00028	.00028

NR-701 ORB B16C507J3G124874GP

(DDM451) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 451/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.200	-3.500	-1.89500	-1.82100	-1.85500	-1.93400	-1.86600	-1.77600	.34400	.33800	.99850	.99810
.201	.100	-1.94800	-1.85800	-1.90500	-1.99200	-1.89700	-1.81800	.34400	.33900	.99650	.99670
.201	5.400	-1.92900	-1.81900	-1.88500	-1.97300	-1.85700	-1.78200	.34400	.33900	.99650	.99770
.202	10.600	-1.85800	-1.75100	-1.81700	-1.89800	-1.79300	-1.70800	.34500	.33800	.99850	.99880
.203	15.900	-1.81600	-1.71300	-1.77500	-1.85700	-1.75900	-1.66700	.34500	.33900	.99900	.99900
.203	19.000	-1.82100	-1.72000	-1.78000	-1.86200	-1.76600	-1.67400	.34600	.33900	.99800	.99880
GRADIENT	-.01472	-.01028	-.01389	-.01611	-.02061	-.01167	-.02056	-.02056	-.02056	-.02056	-.02056

NR-701 ORB B16C507J3G124874GP

(DDM451) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 451/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.200	-3.500	60.27900	.99990	.99980	.99910	.99840	.99630	.99740	.99860	.99890	.99880
.201	.100	60.77700	.99900	.99820	.99580	.99470	.99340	.99520	.99550	.99680	.99760
.201	5.400	61.02300	.99670	.99610	.99540	.99530	.99590	.99280	.99390	.99830	.99970
.202	10.600	61.43600	.99880	.99870	.99860	.99850	.99860	.99500	.99710	.99940	.99940
.203	15.900	62.24400	.99920	.99920	.99910	.99910	.99900	.99750	.99860	.99920	.99920
.203	19.000	62.34500	.99900	.99900	.99900	.99900	.99850	.99790	.99870	.99900	.99890
GRADIENT	.13633	-.00025	-.00044	-.00092	-.00103	-.00081	-.00061	-.00058	-.00058	-.00058	-.00053

DATE 05 DEC 75

TABULATED PROPELLION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3612487+CP

(PDN451) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 451/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.200	-3.500	60.27900	.99530	.99650	.99860	.99950	.99980	.99790	.99870	.99880	.99910
.201	.100	60.77700	.99440	.99440	.99560	.99680	.99870	.99440	.99500	.99790	.99900
.202	5.400	61.02300	.99720	.99720	.99720	.99740	.99810	.99420	.99560	.99930	.99970
.203	10.600	61.43600	.99780	.99820	.99890	.99920	.99930	.99700	.99820	.99970	.99980
.204	15.900	62.24400	.99880	.99890	.99910	.99920	.99920	.99760	.99850	.99940	.99950
.205	19.000	62.34500	.99890	.99880	.99890	.99900	.99890	.99710	.99840	.99920	.99920
GRADIENT	.13833		-.00025	-.00038	-.00089	-.00075	-.00031	-.00097	-.00103	-.00025	-.00073

NR-701 ORB B16C507J3612487+CP

(CDN452) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 452/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFRI	MFRO	VC
.200	-3.400	60.39700	.28200	.27900	.28000	.27700	.28300	.27800	1.16820	1.14840	.24200
.201	.100	60.71800	.28500	.28400	.28300	.28200	.28200	.27900	1.16010	1.14940	.24300
.202	5.300	61.24500	.28400	.28400	.28300	.28200	.28300	.28100	1.15870	1.15240	.24400
.203	10.600	61.50000	.28400	.28200	.28200	.28400	.28000	.28000	1.16190	1.14500	.24500
.204	15.900	61.94600	.28900	.28600	.28700	.28400	.28300	.28300	1.17140	1.15190	.24500
.205	19.000	62.26700	.28900	.28600	.28700	.28400	.28300	.28300	1.16900	1.14990	.24600
GRADIENT	.09171		.00086	.00143	.00086	.00143	-.00029	.00029	-.00231	.00029	.00029

DATE 09 DEC 73

TABLETATED PROPULSION SOURCE DATA NAAL-701

(DON452) ( 29 SEP 73 )

NR-7J1 ORB 815C507J3G12W87+GP

### PARAMETRIC DATA

BETA	=	.000	CPP	=	154.000
DE	=	.000	DA	=	.000
X/L	=	.000	LTP	=	4.000
NBT	=	.000	RD	=	2.000

Run No	452/3	RVL =	.20	GRADIENT INTERVAL =	-5.00/	5.00
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## REFERENCE DATA

SREF =	4.4119	SQ.FT.	YARP =	43.5974	INCHES
LREF =	19.2999	INCHES	YARP =	.0000	INCHES
BREF =	37.9349	INCHES	ZARP =	16.2000	INCHES
SCALE =	.0405				

	ALPHA	CPSI	CPSO	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.MACH	-3.400	-83600	-79300	-81300	-85900	-82300	-76300	.27000	.26500	.99880	.99810
.200											
.201	.100	-90000	-85500	-87300	-92800	-88200	-82900	.26900	.26700	.99620	.99650
.202	5.300	-89800	-81900	-86800	-92500	-84300	-79500	.27000	.26800	.99620	.99770
.202	10.600	-82100	-75300	-79600	-84600	-78200	-72300	.27100	.26700	.99850	.99890
.203	15.900	-83500	-76800	-80400	-85600	-80000	-73500	.27400	.26900	.99910	.99910
.203	19.000	-83100	-77100	-80500	-85700	-80300	-73800	.27500	.27000	.99880	.99880
GRADIENT		-81829	-81771	-81714	-81971	-81686	-81886	-.70729	.00057	-.00069	-.00046

NR-701 OFB B16C5D7J3G12487+GP

(EDNA452) ( 29 SEP 73 )

### PARAMETRIC DATA

BETA	=	.0000	CPP	=	154.0000
DE	=	.0000	DA	=	.0000
XL	=	.0000	LIP	=	4.0000
NBT	=	.0000	RD	=	2.0000

Run No	452/0	RMA =	.20	GRADIENT INTERVAL =	-5.00/	5.00
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## REFERENCE DATA

SRF = 4.4119 SQ.FT.      YARP = 43.9974 INCHES  
URF = 19.2999 INCHES      YARP = .0000 INCHES  
BRF = 37.9349 INCHES      ZARP = 16.2020 INCHES  
SCALE = .0405

MOON	ALPHA	Q	RUN NO.	452/0	RVL =	.20	GRADIENT INTERVAL =	-5.00/	5.00	PRT16	PRT17	PRT18	PRT19
.200	-3.470	60.39700	99990							.99880	.99880	.99890	.99880
.201	.100	60.71800	99870							.99640	.99530	.99640	.99720
.202	5.300	61.24500	99620							.99270	.99360	.99800	.99880
.202	10.600	61.50000	99870							.99730	.99730	.99940	.99940
.203	15.900	61.94600	99930							.99790	.99880	.99930	.99920
.203	19.000	62.26700	99900							.99810	.99870	.99890	.99890
.203		.09171	-0.00034							-0.00074	-0.00100	-0.00071	-0.00046

DATE 05 DEC 73

(PDN432) ( 29 SEP 73 )

NR-701 ORB B16C507J3612467+CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 452/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.200	-3.400	60.39700	.99560	.99670	.99860	.99930	.99980	.99790	.99850	.99850	.99880
.201	.100	60.71800	.99430	.99440	.99550	.99650	.99840	.99450	.99490	.99750	.99860
.202	5.300	61.24500	.99710	.99720	.99730	.99750	.99790	.99480	.99600	.99920	.99960
.203	10.600	61.50000	.99800	.99830	.99900	.99930	.99930	.99750	.99840	.99960	.99980
.203	15.900	61.94600	.99890	.99890	.99910	.99920	.99930	.99770	.99850	.99950	.99960
.203	19.000	62.26700	.99880	.99880	.99890	.99890	.99890	.99730	.99840	.99910	.99920
GRADIENT	.09171	-.00037	-.00066	-.00089	-.00080	-.00040	-.00040	-.00097	-.00103	-.00029	-.00016

(CDN433) ( 29 SEP 73 )

NR-701 ORB B16C507J3612467+CP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 453/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFR1	MFR0	WC
.200	-3.500	60.50800	.21300	.21100	.21100	.21000	.21700	.21400	.89660	.88390	.24200
.201	.200	60.91200	.20900	.20800	.20800	.20700	.21300	.21100	.87760	.86980	.24300
.202	5.400	61.34700	.20700	.20600	.20600	.20700	.21500	.21500	.88030	.88340	.24400
.202	10.600	61.62700	.21400	.21300	.21200	.21100	.21900	.21800	.89700	.88210	.24400
.203	15.900	62.13100	.21900	.21900	.21900	.21900	.22000	.21800	.89540	.88050	.24500
.203	19.000	62.38000	.21700	.21700	.21600	.21600	.21800	.21500	.88820	.87450	.24600
GRADIENT	.10919	-.00108	-.00081	-.00081	-.00081	-.00108	-.00108	-.00081	-.00154	-.00381	.00027

NR-701 ORB B16C507J3G12A87\*CP

(EDM453) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 453/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.200	-3.500	-0.07070	-0.06500	-0.06800	-0.09000	-0.08400	-0.04700	.20300	.20100	.99860	.99810
.201	.200	-0.13000	-0.10600	-0.11600	-0.14400	-0.12200	-0.09100	.20000	.19800	.99870	.99610
.202	5.400	-0.13400	-0.08200	-0.11800	-0.15200	-0.09800	-0.06900	.20200	.20200	.99870	.99760
.202	10.600	-0.08400	-0.03900	-0.07300	-0.09700	-0.05800	-0.02000	.20600	.20200	.99840	.99870
.203	15.900	-0.05800	-0.02200	-0.04400	-0.07200	-0.04300	-0.00100	.20600	.20200	.99970	.99900
.203	19.000	-0.04800	-0.01700	-0.03500	-0.06200	-0.03900	.00400	.20500	.20100	.99880	.99880
GRADIENT	-0.1378	-0.0108	-0.01297	-0.01486	-0.01127	-0.01189	-0.00081	-0.00081	-0.00070	-0.00070	-0.00054

NR-701 ORB B16C507J3G12A87\*CP

(EDM453) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 453/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.200	-3.500	60.50800	.99980	.99960	.99910	.99850	.99700	.99780	.99870	.99890	.99880
.201	.200	60.91200	.99830	.99750	.99540	.99450	.99330	.99510	.99520	.99610	.99670
.202	5.400	61.34700	.99580	.99550	.99510	.99500	.99540	.99310	.99390	.99760	.99840
.202	10.600	61.62700	.99860	.99850	.99840	.99840	.99840	.99590	.99730	.99930	.99920
.203	15.900	62.31000	.99920	.99920	.99910	.99910	.99890	.99820	.99880	.99920	.99910
.203	19.000	62.38000	.99890	.99890	.99890	.99890	.99880	.99840	.99870	.99890	.99880
GRADIENT	.10319	-.00041	-.00057	-.00057	-.00100	-.00108	-.00100	-.00075	-.00095	-.00076	-.00051



DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3612487+CP

(FDM453) ( 29 SEP 73 )

REFERENCE DATA

BREF = 4.4119 80.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

PARAMETRIC DATA

RUN NO. 453/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.200	-3.500	60.90800	.99610	.99700	.99850	.99910	.99970	.99870	.99840	.99850	.99860
.201	.200	60.91200	.99420	.99430	.99520	.99600	.99760	.99430	.99460	.99710	.99610
.202	5.400	61.34700	.99700	.99710	.99720	.99730	.99760	.99490	.99600	.99900	.99940
.202	10.600	61.62700	.99780	.99810	.99890	.99910	.99910	.99760	.99820	.99950	.99950
.203	15.900	62.13100	.99880	.99890	.99910	.99920	.99810	.99870	.99870	.99940	.99950
.203	19.000	62.38000	.99880	.99880	.99890	.99890	.99890	.99790	.99860	.99910	.99910
GRADIENT		.10919	-.00051	-.00073	-.00089	-.00084	-.00057	-.00010	-.000103	-.00038	-.00014

REFERENCE DATA

BREF = 4.4119 80.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

PARAMETRIC DATA

RUN NO. 454/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	W/M	W/M	W/M	W/M	W/M	W/M	W/M	W/M	W/M
.117	-3.200	20.99700	.18600	.18600	.18600	.18600	.18600	.18900	.133820	.132720	.14270
.118	.100	20.16500	.18500	.18500	.18500	.18500	.18500	.18900	.134240	.134050	.14100
.117	5.300	20.40200	.18600	.18600	.18600	.18600	.18600	.18900	.134200	.133120	.14270
.117	10.500	20.42500	.18700	.18700	.18700	.18700	.18700	.19000	.135140	.133960	.14200
.118	15.700	20.76100	.18700	.18700	.18700	.18700	.18700	.19400	.134150	.13170	.14300
.117	16.700	20.60600	.18800	.18800	.18800	.18800	.18800	.19600	.134820	.13120	.14200
.117	17.700	20.79100	.18900	.18900	.18900	.18900	.18900	.16600	.135380	.115660	.14300
.117	18.800	20.62300	.18800	.18800	.18800	.18800	.18800	.16400	.136050	.115050	.14300
.118	18.800	20.86600	.18900	.18900	.18900	.18900	.18900	.16400	.135610	.114570	.14300
GRADIENT		-.13091	-.00030	-.00030	-.00061	-.00020	-.00061	.00000	.00127	.00403	-.00030

DATE 03 DEC 73

STAMINATED PROPULSION SOURCE DATA NAAL-701

(DDA454) ( 29 SEP 73 )

NR-701 CWB B16C5D7J3A87+CP

## REFERENCE DATA

SREY = 4.4119 SQ.FT.      YARP = 43.5974 INCHES  
 LARF = 19.2999 INCHES      YARP = .0000 INCHES  
 SREY = 37.9349 INCHES      ZARP = 16.2030 INCHES  
 SCALE = .0405

BETA	=	.000	CPP	=	154.000
XL	=	.000	LIP	=	4.000
NBT	=	.000	RD	=	2.000

### PARAMETRIC DATA

Parameter	Estimate	Standard Error	t-Statistic	p-Value	Gradient Interval
Intercept	1.00	0.00	100.00	0.00	1.00 / 1.00
Age	0.00	0.00	0.00	1.00	0.00 / 0.00
Gender	0.00	0.00	0.00	1.00	0.00 / 0.00
Education	0.00	0.00	0.00	1.00	0.00 / 0.00
Income	0.00	0.00	0.00	1.00	0.00 / 0.00
Health	0.00	0.00	0.00	1.00	0.00 / 0.00
Marital Status	0.00	0.00	0.00	1.00	0.00 / 0.00
Occupation	0.00	0.00	0.00	1.00	0.00 / 0.00
Religion	0.00	0.00	0.00	1.00	0.00 / 0.00
Political Affiliation	0.00	0.00	0.00	1.00	0.00 / 0.00
Life Satisfaction	0.00	0.00	0.00	1.00	0.00 / 0.00
Overall Mean	1.00	0.00	100.00	0.00	1.00 / 1.00

MACH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS04	CPS02	MIN	MON	PRT1	PRT0
.117	-3.200	-1.43100	-1.33470	-1.41100	-1.45100	-1.38500	-1.28200	.18000	.17800	.99890	.99940
.116	.100	-1.49100	-1.35000	-1.46700	-1.51500	-1.41500	-1.28600	.17800	.17800	.99850	.99970
.117	5.300	-1.49300	-1.33700	-1.46700	-1.51900	-1.43600	-1.23900	.17900	.17800	.99950	.99950
.117	10.500	-1.45000	-1.36100	-1.42700	-1.47500	-1.45500	-1.26700	.18100	.17900	.99920	.99960
.116	15.700	-1.40300	-1.42700	-1.38300	-1.42400	-1.52700	-1.33400	.18100	.18200	.99930	.99940
.117	16.700	-1.41100	-1.48100	-1.36900	-1.43300	-1.58400	-1.37900	.18100	.18400	.99940	.99950
.116	17.700	-1.45400	-2.66700	-1.43700	-1.47700	-2.91000	-2.41000	.18300	.15800	.99930	.99930
.117	18.800	-1.46600	-2.87900	-1.44500	-1.48700	-3.16900	-2.58900	.18300	.15700	.99920	.99790
.116	18.800	-1.45900	-2.86300	-1.43800	-1.48700	-3.14900	-2.57700	.18300	.15700	.99920	.99790
CRACK		-1.48180	-2.87485	-1.46197	-1.51939	-3.07909	-2.50121	-.00061	-.00000	-.00012	.00000

### REFERENCE DATA

3007 = 4.4119 SQ.FT. 10000 = 43.5974 INCHES  
 1007 = 19.2998 INCHES 10000 = 0.000 INCHES  
 2007 = 37.9349 INCHES 20000 = 16.2000 INCHES  
 3007 = .0405 SCALE

BETA	=	.000	GPP	=	154.000
XAL	=	.000	LIP	=	4.000
NR1	=	.000	RD	=	2.000

### PARAMETRIC DATA

(ETXN 54) ( 29 SEP 73 )

AF-771 CRB B16C507J3427+CP

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	

ALPHA	Q	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19
.117	20.59700	.99940	.99940	.99910	.99890	.99820	.99840	.99880	.99910	.99920
.116	20.16520	.99930	.99930	.99820	.99790	.99750	.99800	.99810	.99860	.99890
.117	20.40200	.99830	.99830	.99800	.99810	.99720	.99720	.99760	.99900	.99930
.117	20.42300	.99930	.99930	.99920	.99910	.99910	.99800	.99860	.99950	.99950
.116	20.76100	.99940	.99940	.99930	.99930	.99920	.99880	.99910	.99940	.99930
.117	20.60800	.99950	.99950	.99950	.99940	.99940	.99890	.99930	.99950	.99950
.116	17.700	.99930	.99930	.99920	.99920	.99920	.99870	.99910	.99930	.99930
.117	20.62300	.99940	.99940	.99930	.99930	.99930	.99870	.99920	.99940	.99940
.117	18.600	.99930	.99930	.99930	.99930	.99920	.99880	.99910	.99930	.99930
.116	20.86620	.99930	.99930	.99920	.99920	.99920	.99812	.99821	.99915	.99913





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TABULATED PROPLUSION SOURCE DATA NAAL-701

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NR-701 ORB 816C307J3487+CP

(FDM454) ( 29 SEP 73 )

REFERENCE DATA

SRF = 4.4119 88.FT. WARP = 43.9974 INCHES  
LRF = 19.2999 INCHES YARP = .0000 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

PARAMETRIC DATA

RUN NO. 454/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	0	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.117	-3.200	20.98700	.99940	.99940	.99940	.99940	.99940	.99950	.99940	.99950	.99950
.116	.100	20.16500	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.117	5.300	20.40200	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.117	10.900	20.42500	.99960	.99960	.99960	.99960	.99960	.99970	.99960	.99960	.99960
.116	15.700	20.76100	.99940	.99940	.99940	.99940	.99940	.99950	.99940	.99940	.99940
.117	16.700	20.40600	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.116	17.700	20.79100	.96510	.97070	.99950	.99950	.99950	.99970	.97970	.96690	.96690
.117	18.800	20.62500	.96140	.96700	.99890	.99890	.99940	.99950	.99870	.97600	.96320
.116	16.800	20.66600	.96110	.96690	.99410	.99870	.99930	.99930	.99930	.97580	.96280
GRADIENT		-13091	.00009	.00009	.00009	.00009	.00009	.00009	.00009	.00009	.00009

REFERENCE DATA

SRF = 4.4119 88.FT. WARP = 43.9974 INCHES  
LRF = 19.2999 INCHES YARP = .0000 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
X/L = .000 L/P = 4.000  
NBT = .000 RD = 2.000

PARAMETRIC DATA

RUN NO. 455/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

NAOH	ALPHA	0	W/M	W/M	Q/M	W/C	W/C	W/C	W/C	W/C	W/C
.117	-3.300	20.90000	.27900	.27400	.27400	.26900	.26900	.26900	.26900	.26900	.26900
.116	.100	20.37900	.26900	.27100	.27200	.26800	.26800	.26800	.26800	.26800	.26800
.117	5.300	20.41600	.26900	.27000	.27100	.26800	.26800	.26800	.26800	.26800	.26800
.117	10.900	20.49000	.26900	.27000	.27100	.26800	.26800	.26800	.26800	.26800	.26800
.117	15.700	20.62400	.27200	.27100	.27200	.26900	.26900	.26900	.26900	.26900	.26900
.117	16.700	20.61900	.27100	.27000	.27100	.26900	.26900	.26900	.26900	.26900	.26900
.116	17.700	20.65100	.27000	.26900	.27000	.26800	.26800	.26800	.26800	.26800	.26800
.117	18.800	20.69600	.26900	.26800	.26900	.26800	.26800	.26800	.26800	.26800	.26800
GRADIENT		-03676	-.00116	-.00088	-.00116	-.00129	-.00129	-.00129	-.00119	-.00168	-.00200

NR-701 ORB B16C507J3487\*CP

(EDM455) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 SQ.FT. WARP = 43.5974 INCHES  
 LWRD = 19.2999 INCHES YWRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZWRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 455/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	CP51	CP50	CP511	CP512	CP501	CP502	MIN	MON	PRT11	PRT10
.117	-3.300	-3.07100	-3.69300	-3.82000	-3.92200	-3.79200	-3.59500	.25900	.25800	.99900	.99960
.116	.100	-3.09700	-3.67400	-3.83400	-3.94800	-3.78400	-3.56500	.25700	.25400	.99850	.99960
.117	5.300	-3.84900	-3.68800	-3.83200	-3.94800	-3.81300	-3.56300	.25600	.25300	.99850	.99950
.117	10.500	-3.84300	-3.68200	-3.78700	-3.89800	-3.83700	-3.53400	.25800	.25500	.99900	.99950
.117	15.700	-3.82200	-3.71900	-3.76500	-3.87700	-3.90800	-3.53100	.25900	.25700	.99930	.99940
.117	16.700	-3.80800	-3.71500	-3.74500	-3.86100	-3.91500	-3.51600	.25900	.25700	.99930	.99950
.116	17.700	-3.75800	-3.68300	-3.70500	-3.81200	-3.88800	-3.47800	.25900	.25700	.99920	.99940
.117	18.800	-3.76700	-3.71100	-3.71300	-3.82100	-3.92500	-3.49700	.25800	.25700	.99930	.99950
GRADIENT		-.00559	.00559	-.00412	-.00706	.00235	.00882	-.00759	-.00759	-.00715	-.00000

NR-701 ORB B16C507J3487\*CP

(EDM455) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 SQ.FT. WARP = 43.5974 INCHES  
 LWRD = 19.2999 INCHES YWRP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZWRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 455/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.300	20.50000	.99960	.99990	.99930	.99900	.99810	.99840	.99900	.99920	.99920
.116	.100	20.37500	.99940	.99920	.99820	.99770	.99730	.99790	.99800	.99860	.99900
.117	5.300	20.41800	.99870	.99840	.99810	.99810	.99830	.99700	.99750	.99820	.99940
.117	10.500	20.49000	.99930	.99920	.99900	.99970	.99970	.99750	.99840	.99950	.99950
.117	15.700	20.62400	.99940	.99940	.99930	.99930	.99930	.99840	.99910	.99940	.99940
.117	16.700	20.61500	.99940	.99940	.99940	.99930	.99930	.99850	.99920	.99940	.99940
.116	17.700	20.83100	.99930	.99930	.99930	.99930	.99920	.99850	.99910	.99940	.99930
.117	18.800	20.69800	.99940	.99940	.99940	.99940	.99940	.99840	.99920	.99940	.99940
GRADIENT		-.03676	-.00006	-.00009	-.00002	-.00006	-.00024	-.00015	-.00029	-.00018	-.00006

(55-4455) (29 SEP 73)

00-201 000 0162507J9-07+CP

### PARAMETRIC DATA

BETA	=	.000	GP	=	154,000
W	=	.000	LIP	=	4,000
WY	=	.000	RO	=	2,000

## REFERENCE DATA

SECT =	4,419	88.71.	YEAR =	43,974	INCHES
LENG =	19,899	INCHES	YEAR =	.0000	INCHES
SECT =	37,839	INCHES	YEAR =	16,200	INCHES
SCALE =	.0605				

PLAN NO. 455/ 0 RUL = .12 GRADIENT INTERVAL = -5.00' 5.00

[illegible]

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154,000
XXL	=	.000	LIP	=	4,000
ARY	=	.000	RO	=	2,000

**REFERENCE DATA**

DEPTH =	4.4119 30.FT.	10000 =	43.9974 INCHES
LENGTH =	19.2000 INCHES	10000 =	.0000 INCHES
WIDTH =	37.9349 INCHES	20000 =	16.2700 INCHES
SCALE =	.0405		

RUN NO. 456/ 0 RUNL = .12 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

## TABULATED PROPULSION SOURCE DATA NAAL-701

NR-701 ORB B16C507J3W87+GP

(DDM456) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 90. FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 PREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 456/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CPS1	CPSO	CPS11	CPS12	CPSO1	CPSO2	MIN	MON	PRT1	PRT0
.117	-3.200	-6.83100	-6.52500	-6.74200	-6.92100	-6.67700	-6.37300	.33300	.32800	.99890	.99960
.116	.100	-6.96400	-6.64000	-6.86500	-7.06400	-6.81000	-6.46900	.33400	.32900	.99860	.99960
.116	5.300	-6.99400	-6.65700	-6.89100	-7.09600	-6.84800	-6.46700	.33400	.32900	.99870	.99970
.117	10.400	-6.90800	-6.63900	-6.81100	-7.06600	-6.84700	-6.43100	.33400	.33000	.99900	.99950
.117	15.600	-6.80100	-6.57500	-6.70800	-6.89500	-6.80700	-6.34300	.33500	.33000	.99920	.99940
.117	16.700	-6.82100	-6.60600	-6.72800	-6.91400	-6.84700	-6.36500	.33500	.33000	.99920	.99950
.118	17.800	-6.80100	-6.61700	-6.71700	-6.89500	-6.84700	-6.37100	.33500	.33100	.99920	.99940
.117	18.800	-6.82300	-6.65500	-6.73000	-6.91600	-6.91000	-6.39900	.33500	.33200	.99930	.99940
	GRADIENT	-.04030	-.03485	-.03727	-.04333	-.04030	-.02909	.02030	.02030	-.00009	.00000

NR-701 ORB B16C507J3W87+GP

(EDM456) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 90. FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 PREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 456/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.200	20.52700	.99950	.99950	.99930	.99900	.99800	.99830	.99930	.99920	.99920
.116	.100	20.34900	.99950	.99930	.99830	.99790	.99730	.99780	.99820	.99880	.99920
.116	5.300	20.32300	.99910	.99870	.99820	.99820	.99840	.99650	.99760	.99940	.99960
.117	10.400	20.45900	.99930	.99920	.99910	.99900	.99910	.99660	.99830	.99950	.99950
.117	15.600	20.72600	.99940	.99940	.99940	.99930	.99920	.99790	.99900	.99940	.99940
.117	16.700	20.61600	.99950	.99950	.99950	.99950	.99940	.99830	.99920	.99950	.99950
.118	17.800	20.78800	.99940	.99940	.99930	.99930	.99920	.99800	.99910	.99930	.99930
.117	18.800	20.69100	.99940	.99940	.99940	.99940	.99930	.99810	.99920	.99940	.99940
	GRADIENT	-.05394	.00000	-.00006	-.00030	-.00033	-.00021	-.00015	-.00024	-.00012	.00000

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TABULATED PROPLUSION SOURCE DATA NUAL-701

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NR-701 ORB B16C507J3M87+GP

(FDM456) ( 29 SEP 75 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 456/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.117	-3.200	20.92700	.99950	.99950	.99950	.99960	.99950	.99970	.99950	.99960	.99960
.116	.100	20.34900	.99950	.99950	.99950	.99960	.99960	.99970	.99960	.99960	.99960
.116	5.300	20.32300	.99960	.99960	.99960	.99970	.99960	.99970	.99960	.99970	.99970
.117	10.400	20.45900	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.117	15.600	20.72600	.99940	.99940	.99930	.99940	.99930	.99950	.99940	.99940	.99940
.117	16.700	20.61600	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.118	17.800	20.76800	.99930	.99930	.99930	.99940	.99930	.99940	.99930	.99940	.99940
.117	18.800	20.69100	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99950
GRADIENT		-.05394	.00000	.00000	.00000	.00000	.00000	-.00000	.00000	.00000	.00000

## REFERENCE DATA

SRF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 457/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	W01	W02	W03	Q001	V01C	W03C	W01T	W02T	W03T
.117	-3.200	20.93500	.42200	.42300	.42400	.42400	.38600	.38100	2.70970	2.67520	.14200
.116	.100	20.34800	.42300	.42500	.42500	.42600	.38600	.38100	2.72390	2.69080	.14100
.117	5.300	20.46800	.42200	.42300	.42300	.42400	.38700	.38100	2.71370	2.68120	.14200
.117	10.400	20.48300	.42300	.42300	.42500	.42500	.38700	.38200	2.71850	2.68810	.14200
.118	15.600	20.79500	.42200	.42100	.42400	.42400	.38600	.38200	2.69590	2.66830	.14300
.117	16.700	20.60800	.42300	.42200	.42500	.42400	.38700	.38300	2.71040	2.68530	.14200
.118	17.700	20.85300	.42200	.42100	.42400	.42400	.38600	.38300	2.69230	2.66880	.14300
.117	18.800	20.64400	.42300	.42100	.42500	.42300	.38700	.38400	2.70830	2.68760	.14200
GRADIENT		-.05667	.00000	.00061	.00000	.00061	.00000	.00000	.00430	.00473	-.00000

NR-701 ORB B16C507J3M87+GP

(CDM457) ( 29 SEP 75 )

NR-701 ORB B16C507J34874GP

(DDN457) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = .54.000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 457/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPSI	CPSO	CPS11	CPS12	CPS01	CPS02	MIN	MCN	PRTI	PRT0
.117	-3.200	-9.51400	-9.14100	-9.39800	-9.63000	-9.34300	-8.94000	.39000	.38400	.99890	.99850
.116	.100	-9.66600	-9.25100	-9.54300	-9.78900	-9.47400	-9.02700	.39100	.38500	.99860	.99970
.117	5.300	-9.59300	-9.18800	-9.46800	-9.71800	-9.42800	-8.94700	.39000	.38400	.99850	.99860
.117	10.400	-9.54500	-9.24000	-9.46700	-9.70300	-9.50700	-8.97400	.39100	.38600	.99890	.99860
.118	15.600	-9.38800	-9.11900	-9.27500	-9.49600	-9.40600	-8.82400	.39100	.38600	.99910	.99340
.117	16.700	-9.47700	-9.23400	-9.36400	-9.59700	-9.53400	-8.93400	.39100	.38700	.99930	.99950
.118	17.700	-9.34700	-9.12100	-9.23600	-9.45800	-9.42400	-8.81800	.39100	.38600	.99920	.99940
.117	18.800	-9.46900	-9.26700	-9.35900	-9.57900	-9.58100	-8.95300	.39100	.38700	.99920	.99940
GRADIENT	-.04606	-.03333	-.04394	-.04818	-.03970	-.02836		.00030	.00030	-.00009	.00006

NR-701 ORB B16C507J34874GP

(EDN457) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 457/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.200	20.53500	.99950	.99950	.99950	.99950	.99780	.99800	.99950	.99920	.99930
.116	.100	20.34800	.99960	.99940	.99840	.99780	.99730	.99690	.99820	.99900	.99930
.117	5.300	20.46800	.99910	.99870	.99810	.99810	.99830	.99520	.99730	.99930	.99950
.117	10.400	20.48300	.99940	.99930	.99910	.99910	.99910	.99490	.99810	.99960	.99960
.118	15.600	20.79500	.99940	.99940	.99930	.99930	.99920	.99690	.99890	.99930	.99940
.117	16.700	20.60800	.99950	.99950	.99950	.99950	.99940	.99770	.99920	.99950	.99950
.118	17.700	20.85300	.99940	.99940	.99930	.99930	.99930	.99740	.99910	.99940	.99940
.117	18.800	20.64400	.99940	.99940	.99940	.99940	.99940	.99760	.99910	.99940	.99940
GRADIENT	-.05667	.00003	-.00003	-.00003	-.00027	-.00036	-.00015	-.00033	-.00024	-.00026	.00000

DATE 05 DEC 73 TABULATED PROPLUSION SOURCE DATA NAL-701

NR-701 ORB 816C507J3487+CP

(FDMA57) ( 29 SEP 73 )

PARAMETRIC DATA

REFERENCE DATA

BREF = 4.4119 80.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 457/ 0 RV/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.117	-3.200	20.53500	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.116	.100	20.34800	.99960	.99960	.99960	.99960	.99960	.99970	.99960	.99970	.99970
.117	5.300	20.46800	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.117	10.400	20.48300	.99960	.99960	.99960	.99960	.99960	.99970	.99960	.99970	.99960
.116	15.600	20.79500	.99930	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940
.117	16.700	20.80800	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.116	17.700	20.85300	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940
.117	18.800	20.64400	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940
GRADIENT		-.05667	.00003	.00003	.00003	.00003	.00003	.00003	.00003	.00003	.00003

NR-701 ORB 816C507J3487+CP

(CDMA58) ( 29 SEP 73 )

REFERENCE DATA

BREF = 4.4119 80.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

RUN NO. 458/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WTH	WCH	QUTM	QACH	WIC	WOC	MFR1	MFR0	WC
.201	-3.500	60.78900	.44000	.44100	.43500	.43500	.40000	.39600	1.63563	1.62090	.24400
.201	.200	60.64600	.43700	.44100	.43300	.43500	.39700	.39600	1.62900	1.62440	.24400
.202	5.400	61.26600	.43600	.43900	.43200	.43400	.39700	.39600	1.62110	1.61520	.24500
.203	10.600	61.74800	.43800	.43700	.43200	.43200	.39800	.39600	1.62090	1.61200	.24500
.203	15.900	62.12000	.43700	.43600	.43300	.43100	.39900	.39900	1.61940	1.62090	.24600
.203	16.900	62.12100	.43800	.43500	.43300	.43000	.39900	.40100	1.61960	1.62700	.24600
.203	18.100	62.22900	.44000	.40700	.43500	.42500	.40000	.37600	1.62390	1.52480	.24600
.204	19.000	62.50700	.44100	.40600	.43600	.42500	.40100	.37800	1.62280	1.52830	.24700
GRADIENT		-.03757	-.00081	.00000	-.00054	.00000	-.00081	.00000	-.00178	.00105	.00000

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STABILIZED PROPULSION SOURCE DATA NAAL-701

(DDN438) ( 29 SEP 73 )

NR-771 ORR B16C507J3W87+CP

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154,000
X/L	=	.000	LIP	=	4,000
MRT	=	.000	RD	=	2,000

## REFERENCE DATA

SPEJ = 4.4119 SQ.FT. YARP = 43.9974 INCHES  
LREY = 19.2999 INCHES YARP = .0000 INCHES  
BREY = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 458/ 0 RML = .20 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

### REFERENCE DATA

SRF = 4.4119 SQ. FT.      YARP = 43.5974 INCHES  
LRF = 19.2999 INCHES      YARP = .0000 INCHES  
BRF = 37.9349 INCHES      ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 458/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.500	60.78500	.99980	.99970	.99910	.99830	.99590	.99680	.99840	.99870	.99870
.201	.200	60.64600	.99920	.99840	.99560	.99430	.99280	.99570	.99530	.99670	.99770
.202	5.400	61.26600	.99690	.99670	.99490	.99490	.99560	.99290	.99350	.99820	.99910
.203	10.600	61.74800	.99840	.99910	.99790	.99790	.99800	.99400	.99620	.99910	.99910
.203	15.900	62.12000	.99920	.99910	.99910	.99910	.99880	.99690	.99840	.99920	.99910
.203	16.900	62.12100	.99920	.99920	.99910	.99910	.99970	.99740	.99870	.99920	.99920
.203	18.100	62.22900	.99910	.99910	.99900	.99900	.99890	.99790	.99850	.99910	.99970
.203	19.000	62.50700	.99890	.99890	.99890	.99880	.99880	.99730	.99840	.99890	.99890
.204	20.000	62.73200	.99870	.99870	.99870	.99860	.99860	.99640	.99784	.99854	.99854

(ETW 15A) ( 29 SEP 73 )

NR-701 CRB B16C5D7J3W87+CP

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
XL	=	.000	LIP	=	4.000
NRI	=	.000	RO	=	2.000



TABULATED PROPELLSION SOURCE DATA NAAL-701

DATE 05 DEC 75

NR-701 ORB B16C507J3487+CP

(PDN458) ( 29 SEP 75 )

REFERENCE DATA

REF = 4.4119 94. FT. XMA = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 458/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.500	60.76500	.99980	.99980	.99980	.99990	.99980	1.00010	.99980	1.00000	1.00000
.201	.200	60.64600	.99990	.99990	.99990	1.00000	.99990	1.00020	1.00000	1.00020	1.00010
.202	5.400	61.26600	.99950	.99950	.99950	.99960	.99950	.99980	.99950	.99970	.99970
.203	10.600	61.74800	.99920	.99920	.99920	.99920	.99910	.99940	.99920	.99940	.99930
.203	15.900	62.12000	.99920	.99920	.99920	.99920	.99910	.99940	.99920	.99940	.99930
.203	16.900	62.12100	.99920	.99920	.99920	.99920	.99910	.99940	.99920	.99940	.99940
.203	18.100	62.22900	.89080	.92440	.99950	.99900	.99900	.99930	.99870	.94490	.91070
.204	19.000	62.50700	.87920	.91150	.99340	.99870	.99890	.99920	.99870	.93680	.91070
GRADIENT		-.03757	.00003	.00003	.00003	.00003	.00003	.00003	.00005	.00005	.00003

NR-701 ORB B16C507J3487+CP

(CDN459) ( 29 SEP 75 )

REFERENCE DATA

REF = 4.4119 94. FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 459/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MERI	MERO	WC
.201	-3.600	60.80400	.37100	.37300	.36700	.36900	.35200	.35000	1.44710	1.43790	.24300
.201	.200	60.83900	.36600	.37100	.36400	.36800	.34800	.34900	1.42970	1.43230	.24300
.202	5.400	61.30500	.36800	.37300	.36500	.36900	.35000	.35000	1.43310	1.43430	.24400
.202	10.600	61.47300	.36800	.36900	.36500	.36600	.35200	.35100	1.44010	1.43510	.24400
.203	15.900	62.21100	.36900	.36800	.36500	.36500	.35100	.35300	1.42890	1.43680	.24600
.203	16.900	62.11800	.36900	.34200	.36600	.35300	.35200	.31600	1.43300	1.28700	.24600
.203	18.000	62.27400	.37100	.34000	.36800	.35800	.35400	.32200	1.43850	1.30820	.24600
.203	19.000	62.34000	.36900	.33500	.36600	.35200	.35200	.32100	1.43190	1.30560	.24600
GRADIENT		.02921	-.00132	-.00053	-.00079	-.00026	-.00105	-.00026	-.00458	-.00147	.00000

NR-701 ORB B16C507J3487+GP

(DDMM59) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 98. FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 459/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRT1	PRT0
.201	-3.600	-1.90200	-1.80200	-1.87300	-1.93100	-1.85700	-1.74700	.34500	.34200	.99820	.99960
.201	.200	-1.91200	-1.78000	-1.87700	-1.94600	-1.84100	-1.71900	.34100	.34100	.99610	.99970
.202	5.400	-1.92100	-1.79400	-1.88600	-1.95600	-1.86300	-1.72500	.34400	.34300	.99620	.99960
.202	10.600	-1.86500	-1.79600	-1.83400	-1.89700	-1.87700	-1.71400	.34500	.34400	.99840	.99970
.203	15.900	-1.80600	-1.82600	-1.77600	-1.83600	-1.93000	-1.72200	.34600	.34600	.99880	.99910
.203	16.900	-1.81300	-2.65300	-1.78200	-1.84400	-2.84500	-2.48000	.34500	.31900	.99900	.96140
.203	18.000	-1.84500	-3.31100	-1.81300	-1.87700	-3.58300	-3.03900	.34700	.33100	.99880	.94620
.203	19.000	-1.81400	-3.39200	-1.78300	-1.84500	-3.68100	-3.10400	.34800	.33200	.99890	.94380
GRADIENT		-.00263	.00579	-.00105	-.00395	.00421	.00737	-.00105	-.00026	-.00055	-.00003

NR-701 ORB B16C507J3487+GP

(EDMM59) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 98. FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 459/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.80400	.99970	.99960	.99900	.99830	.99620	.99690	.99830	.99870	.99860
.201	.200	60.83900	.99880	.99780	.99530	.99410	.99290	.99470	.99500	.99630	.99730
.202	5.400	61.30500	.99640	.99580	.99500	.99490	.99550	.99250	.99350	.99800	.99900
.202	10.600	61.47300	.99880	.99850	.99840	.99840	.99850	.99470	.99670	.99950	.99960
.203	15.900	62.21100	.99900	.99900	.99890	.99890	.99880	.99710	.99840	.99900	.99900
.203	16.900	62.11800	.99930	.99930	.99920	.99920	.99900	.99760	.99870	.99920	.99920
.203	18.000	62.27400	.99910	.99910	.99900	.99890	.99890	.99730	.99850	.99900	.99900
.203	19.000	62.34000	.99910	.99910	.99910	.99900	.99900	.99760	.99860	.99910	.99910
GRADIENT		.00921	-.00024	-.00047	-.00097	-.00111	-.00087	-.00058	-.00087	-.00063	-.00034



## TABULATED PROPULSION SOURCE DATA NAAL-701

DATE 05 DEC 75

(FDM459) ( 29 SEP 75 )

NR-701 ORB B16C507J3487+CP

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

## REFERENCE DATA

SRF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LRF = 19.2999 INCHES YARP = .0000 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 459/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PRTO5	PRTO6	PRTO7	PRTO8	PRTO9
.201	-3.600	60.60400	.99970	.99970	.99970	.99980	.99970	1.00000	.99970	.99990	.99990
.201	.200	60.63900	.99980	.99980	.99980	.99970	.99980	.99990	.99970	.99990	.99980
.202	5.400	61.30900	.99950	.99950	.99950	.99960	.99950	.99980	.99950	.99970	.99980
.202	10.600	61.47300	.99980	.99980	.99980	.99970	.99980	.99990	.99960	.99980	.99980
.203	15.900	62.21100	.99970	.99970	.99970	.99910	.99970	.99930	.99910	.99930	.99930
.203	16.900	62.11800	.99970	.99970	.99970	.99970	.99970	.99950	.99890	.95760	.92300
.203	18.000	62.27400	.89790	.91270	.91300	.96850	.99970	.99930	.99840	.93220	.91070
.203	19.000	62.34000	.88440	.90660	.90840	.99810	.99910	.99930	.99870	.93220	.91070
GRADIENT		.00921	-.00003	-.00003	-.00003	-.00003	-.00003	-.00003	.00000	.00000	-.00003

(CDM460) ( 29 SEP 75 )

NR-701 ORB B16C507J3487+CP

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

## REFERENCE DATA

SRF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LRF = 19.2999 INCHES YARP = .0000 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 460/ 0 RVAL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	OWIM	OWOM	VIC	WOC	MFRI	MFRO	WC
.201	-3.600	60.91800	.28900	.29200	.28700	.29000	.28700	.28600	1.18100	1.17690	.24300
.201	.200	60.72000	.28400	.29000	.28300	.28800	.28300	.28600	1.16570	1.17670	.24300
.201	5.400	61.07400	.28500	.29100	.28400	.28900	.28400	.28600	1.16800	1.17690	.24300
.202	10.600	61.71000	.28900	.29300	.28700	.29000	.28800	.28800	1.17750	1.17750	.24400
.203	15.900	62.08800	.28800	.29200	.28700	.29100	.28800	.28600	1.17410	1.16650	.24500
.203	17.000	62.19700	.29200	.29600	.29000	.29300	.29100	.24900	1.18550	1.01400	.24500
.203	18.000	62.34800	.29200	.29600	.29100	.29300	.24600	.24900	1.18250	.99950	.24600
.203	19.100	62.31500	.29200	.29600	.29000	.29300	.24900	.24900	1.18560	1.01290	.24600
GRADIENT		-.05211	-.00132	-.00105	-.00053	-.00053	-.00105	.00000	-.00403	-.00075	.00000

NR-701 ORB B16C507J34874-CP

(DDMM60) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 460/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CPSI	CP90	CS11	CP812	CP901	CP902	MIN	MON	PRTI	PRT0
.201	-3.600	-1.88500	-1.81600	-1.86800	-1.90200	-1.75200	-1.77900	.27500	.27500	.99840	.99990
.201	.200	-.92300	-.81700	-.90100	-.94500	-.85900	-.77400	.27100	.27500	.99610	.99990
.201	5.400	-.92500	-.82100	-.90200	-.94800	-.87300	-.76900	.27200	.27400	.99630	.99980
.202	10.600	-.88000	-.83700	-.86200	-.90300	-.81500	-.77200	.27600	.27500	.99820	.99940
.203	15.900	-.84300	-.84300	-.82400	-.86300	-.74400	-.97100	.27600	.27600	.99970	.99920
.203	17.000	-.81500	-2.02700	-.86300	-.90400	-2.25900	-1.79800	.27900	.24700	.99890	.95350
.203	18.000	-.87200	-2.16100	-.85200	-.89200	-2.41700	-1.90500	.27800	.24500	.99890	.94860
.203	19.100	-.88000	-2.30600	-.85900	-.90000	-2.58400	-2.02800	.27900	.24900	.99930	.94570
GRADIENT		-.01000	-.00026	-.00068	-.01132	-.00184	-.00132	-.00105	.00000	-.00061	.00000

NR-701 ORB B16C507J34874-CP

(EDMM60) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 460/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.800	60.91800	.99950	.99970	.99970	.99850	.99670	.99730	.99850	.99870	.99850
.201	.200	60.72000	.99870	.99780	.99550	.99450	.99320	.99570	.99520	.99630	.99710
.201	5.400	61.07400	.99630	.99580	.99510	.99500	.99550	.99280	.99370	.99790	.99890
.202	10.600	61.71000	.99840	.99830	.99810	.99810	.99820	.99490	.99660	.99920	.99930
.203	15.900	62.08600	.99920	.99920	.99910	.99900	.99890	.99760	.99860	.99920	.99920
.203	17.000	62.19000	.99910	.99910	.99900	.99900	.99890	.99780	.99860	.99910	.99910
.203	18.000	62.34800	.99910	.99910	.99900	.99900	.99890	.99870	.99870	.99910	.99910
.203	19.100	62.31500	.99920	.99920	.99910	.99910	.99900	.99870	.99880	.99910	.99910
GRADIENT		-.08211	-.00029	-.00050	-.00082	-.00105	-.00092	-.00061	-.00087	-.00063	-.00037

REFERENCE DATA

SRF = 4.4119 SQ.FT. WARP = 43.5974 INCHES

LRP = 19.2999 INCHES YARP = .0000 INCHES

BRF = 37.9349 INCHES ZARP = 16.2000 INCHES

SCALE = .0405

BETA = .000 GPP = 154.000

X/L = .000 L/P = 4.000

NBT = .000 RD = 2.000

PARAMETRIC DATA

RUN NO. 480/ 0 RVAL = .20 GRADIENT INTERVAL = -.5.00/ 5.00

WICH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.600	60.91600	.99980	.99980	.99980	.99990	.99980	.99980	.99990	1.00000	1.00000
.201	.200	60.72000	.99980	.99980	.99980	.99990	.99980	.99980	.99980	1.00000	1.00000
.201	5.400	61.07400	.99970	.99970	.99970	.99980	.99970	.99970	.99970	.99990	.99990
.202	10.600	61.71000	.99930	.99930	.99930	.99940	.99930	.99930	.99930	.99950	.99950
.202	15.900	62.06800	.99930	.99930	.99930	.99930	.99920	.99920	.99920	.95160	.97660
.203	17.000	62.19700	.91220	.92350	.98810	.99930	.99910	.99910	.99780	.94490	.91820
.203	18.000	62.34800	.91420	.91450	.98370	.99760	.99910	.99910	.99670	.93480	.91070
.203	19.100	62.31500	.89750	.90780	.97980	.99670	.99910	.99930	.99630	.92480	.91070
GRADIENT			.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

REFERENCE DATA

SRF = 4.4119 SQ.FT. WARP = 43.5974 INCHES

LRP = 19.2999 INCHES YARP = .0000 INCHES

BRF = 37.9349 INCHES ZARP = 16.2000 INCHES

SCALE = .0405

PARAMETRIC DATA

RUN NO. 461/ 0 RVAL = .20 GRADIENT INTERVAL = -.5.00/ 5.00

WICH	ALPHA	Q	WTH	WCH	QWTH	QWCH	WLC	WOC	WFR1	WFR0	WV
.201	-3.600	60.80100	.20900	.21100	.20700	.21000	.21400	.21400	.88250	.88200	.24300
.201	.200	60.66600	.20800	.21700	.20700	.21900	.21300	.21800	.87850	.89930	.24200
.202	5.400	61.23100	.20700	.21500	.20600	.21400	.21700	.21700	.87510	.89160	.24300
.202	10.600	61.52300	.21100	.21400	.21000	.21300	.21900	.21900	.89320	.89690	.24400
.203	15.900	62.15900	.21600	.19100	.21400	.19600	.18400	.18400	.90350	.75120	.24500
.203	16.900	62.10700	.21600	.18800	.21500	.19400	.18200	.18200	.90660	.74470	.24500
.204	18.000	62.43000	.21600	.18500	.21500	.19200	.18100	.18100	.90630	.73910	.24500
.203	19.100	62.34700	.21700	.18300	.21600	.18900	.18100	.18100	.91040	.73950	.24500
GRADIENT			-.00000	.00000	.00000	.00000	.00000	.00000	-.00105	.00455	-.00026

(DDN461) ( 29 SEP 73 )

NR-701 ORB B16C507J3467+CP

## REFERENCE DATA

BREF = 4.4119 50.FT. 100RP = 43.5974 INCHES  
 LREF = 19.2999 INCHES 100RP = .0000 INCHES  
 BREF = 37.9349 INCHES 200RP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 461/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CP31	CP50	CP511	CP512	CP501	CP502	MIN	MON	PRT1	PRT0
.201	-3.600	-0.4400	.00100	-0.03700	-0.05000	-0.01800	.02200	.20100	.20000	.99880	.99980
.201	.200	-0.12500	-0.03300	-0.11400	-0.13600	-0.06500	-0.00100	.20000	.20400	.99620	1.00000
.202	5.400	-0.13200	-0.03000	-0.11900	-0.14500	-0.07300	.01100	.20000	.20300	.99570	.99960
.202	10.600	-0.07900	-0.04200	-0.06200	-0.08400	-0.06000	.00100	.20400	.20500	.99850	.99960
.203	15.900	-0.04900	-0.00000	-0.07200	-0.09500	-0.06100	-0.74000	.20800	.17700	.99890	.96690
.203	16.900	-0.08200	-1.00500	-0.07200	-0.09300	-1.18200	-0.82000	.20900	.17600	.99910	.96360
.204	18.000	-0.06900	-1.10100	-0.07800	-1.10100	-1.29700	-0.91200	.20900	.17600	.99890	.96140
.203	19.100	-0.09600	-1.18700	-0.08400	-1.10700	-1.38100	-0.99200	.21000	.17600	.99900	.95810
GRADIENT		-0.02132	-0.02895	-0.02426	-0.02263	-0.01237	-0.00605	-0.00026	.00105	-0.00063	.00005

(EDN461) ( 29 SEP 73 )

NR-701 ORB B16C507J3467+CP

## REFERENCE DATA

BREF = 4.4119 50.FT. 100RP = 43.5974 INCHES  
 LREF = 19.2999 INCHES 100RP = .0000 INCHES  
 BREF = 37.9349 INCHES 200RP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 461/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CP31	CP50	CP511	CP512	CP501	CP502	MIN	MON	PRT1	PRT0
.201	-3.600	-0.4400	.00100	-0.03700	-0.05000	-0.01800	.02200	.20100	.20000	.99880	.99980
.201	.200	-0.12500	-0.03300	-0.11400	-0.13600	-0.06500	-0.00100	.20000	.20400	.99620	.99980
.202	5.400	-0.13200	-0.03000	-0.11900	-0.14500	-0.07300	.01100	.20000	.20300	.99570	.99960
.202	10.600	-0.07900	-0.04200	-0.06200	-0.08400	-0.06000	.00100	.20400	.20500	.99850	.99960
.203	15.900	-0.04900	-0.00000	-0.07200	-0.09500	-0.06100	-0.74000	.20800	.17700	.99890	.96690
.203	16.900	-0.08200	-1.00500	-0.07200	-0.09300	-1.18200	-0.82000	.20900	.17600	.99910	.96360
.204	18.000	-0.06900	-1.10100	-0.07800	-1.10100	-1.29700	-0.91200	.20900	.17600	.99890	.96140
.203	19.100	-0.09600	-1.18700	-0.08400	-1.10700	-1.38100	-0.99200	.21000	.17600	.99900	.95810
GRADIENT		-0.02132	-0.02895	-0.02426	-0.02263	-0.01237	-0.00605	-0.00026	.00105	-0.00063	.00005

DATE 03 DEC 73

STABULATED PROPULSION SOURCE DATA NAAL-701

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101-100 000 516C507J34874CP

(FD-461) (29 SEP 73)

## REFERENCE DATA

9007 = 4,4119 MM.T. 9009 = 43,9974 INCHES  
 1007 = 19,8999 INCHES 1009 = .0000 INCHES  
 9007 = 37,9349 INCHES 2009 = 16,2000 INCHES  
 SCALE = .0005

BETA	=	.000	GPP	=	154,000
X/L	=	.000	LIP	=	4,000
NSI	=	.000	RD	=	2,000

RUN NO. 451 / 0 RMV = .20 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

NR-701 CRB B16C507J3A87+CF

(CD4162) (29 SEP 73)

## REFERENCE DATA

PROD	=	4.4119	20.FT.	YARR	=	43.5974	INCHES
LAST	=	19.2999	INCHES	YARR	=	.0000	INCHES
PROD	=	37.9349	INCHES	ZARR	=	16.2700	INCHES
SCALE	=	.0405					

BETA	=	-10.000	GAP	=	154.000
XL	=	.000	LIP	=	4.000
NGT	=	.000	RO	=	2.000

$\text{BNN NO} \quad 462/7 \quad \text{BNN} = -12 \quad \text{CRACIENT INTERVAL} = -5.00/ \quad 5.00$

[illegible]

NR-701 ORB 016C507 J34A7+CP

(DOM462) ( 29 SEP 73 )

## REFERENCE DATA

WREY = 4.4119 30. FT. 10000 = 43.5374 INCHES  
LREY = 19.2999 INCHES WREY = .0077 INCHES  
DREY = 37.9349 INCHES ZWREY = 16.2000 INCHES  
SCALE = .0405

RUN NO. 462/0 RNL = .12 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CP81	CP80	CP811	CP812	CP804	CP802	MIN	MON	PRT1	PRT0
MAC4	.000	-1.43200	-1.38400	-1.41900	-1.48900	-1.43600	-1.33200	.18100	1.79000	.99970	.99970
.114	.000	-9.48500	-9.21500	-9.36200	-9.67900	-9.41600	-9.01400	.38800	3.82000	.99970	.99970
.116	.000	-9.48500	-9.21500	-9.36200	-9.67900	-9.41600	-9.01400	.38800	3.82000	.99970	.99970

## REFERENCE DATA

AREA =	4.4119	SQ. FT.	WARP =	43.5574	INCHES
LAST =	19.2999	INCHES	WARP =	.0722	INCHES
BREF =	37.9349	INCHES	ZARP =	16.2720	INCHES
SCALE =	.0415				

RUN NO. 462/0 RVAL = .12 GRADIENT INTERVAL = -5.0E/ 5.00

[illegible]

**REFERENCE DATA**

SPD	=	4.5119	MMPT.	WAP	=	43.5974	[NOES
LWD	=	19.2999	[NOES	WAP	=	.0000	[NOES
SPD	=	37.9349	[NOES	WAP	=	16.2000	[NOES
SCALE	=		.0005				

RUN NO. 482/ 0 RVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



DATE 05 DEC 75

TABULATED PRODUCTION SOURCE DATA NAL-701

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NR-701 ORB B16C507J3G12A87+CP

(CDM463) ( 29 SEP 75 )

## REFERENCE DATA

GRD = 4.4119 88. FT. WARP = 43.9974 INCHES  
 UNDF = 19.2999 INCHES WARP = .0000 INCHES  
 BRD = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 463/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	Q	MIN	MCN	QMIN	QMAX	WFC	LOC	MPRI	MPRO	WC
.201	-3.800	60.79300	.45900	.46000	.45900	.45300	.41300	.41800	1.46800	1.48710	.26100
.201	.100	60.79300	.45700	.46100	.45400	.45900	.41000	.41800	1.46120	1.48940	.26100
.201	5.400	61.10700	.45000	.46300	.45800	.45600	.41200	.42000	1.46170	1.49060	.26100
.202	10.800	61.33900	.45900	.46100	.45900	.45900	.41300	.42100	1.46160	1.48930	.26200
.203	15.900	62.17600	.45600	.45700	.45400	.45100	.41300	.42300	1.45350	1.49070	.26400
.203	16.900	62.14900	.45600	.45600	.45400	.45700	.41300	.42900	1.45380	1.49640	.26400
.203	18.000	62.28100	.46100	.43300	.45700	.44700	.41400	.40200	1.45610	1.41520	.26400
.204	19.000	62.51000	.45900	.42900	.44300	.44300	.41400	.40200	1.45260	1.41270	.26900
GRADIENT									-1.01184	.00062	.00000

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

## REFERENCE DATA

GRD = 4.4119 88. FT. WARP = 43.9974 INCHES  
 UNDF = 19.2999 INCHES WARP = .0000 INCHES  
 BRD = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 463/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MAON	ALPHA	QPS1	QPS0	QPS11	QPS12	QPS04	QPS02	MIN	MCN	MPRI	MPRO	PRTO
.201	-3.800	-3.09900	-2.91300	-3.04200	-3.14900	-3.02200	-2.84400	.41800	.42100	.99920	1.01610	1.01610
.201	.100	-3.12800	-2.94100	-3.06800	-3.18700	-3.03700	-2.84900	.41800	.42200	.99740	1.01620	1.01620
.201	5.400	-3.13300	-2.96500	-3.07200	-3.19500	-3.06800	-2.86200	.41800	.42400	.99730	1.01600	1.01600
.202	10.800	-3.06300	-2.97100	-3.00700	-3.11900	-3.08800	-2.85500	.41900	.42500	.99910	1.01580	1.01580
.203	15.900	-2.99900	-2.99900	-2.93400	-3.04400	-3.13700	-2.85300	.41800	.42800	.99980	1.01560	1.01560
.203	16.900	-3.01600	-3.03200	-2.93200	-3.04200	-3.18100	-2.86200	.41800	.43700	.99980	1.01560	1.01560
.203	18.000	-3.01600	-4.32200	-2.95000	-3.06200	-4.59400	-4.04900	.41900	.42500	.99980	.96170	.96170
.204	19.000	-2.99200	-4.72400	-2.93800	-3.04800	-5.05100	-4.39700	.41900	.43100	.99960	.95030	.95030
GRADIENT									.00027	-1.01149	.00000	.00000

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 4.000  
 NBT = .000 RD = 2.000

(CDM463) ( 29 SEP 75 )

(EDM463) ( 29 SEP 73 )

NR-701 CRB B16C507J3C12A87+GP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 463/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.78300	.99950	1.00320	.98880	1.00060	.99830	.99680	.99840	.99960	.99870
.201	.100	60.73600	.99900	1.00390	.98530	.99660	.99530	.99490	.99530	.99760	.99770
.201	5.400	61.10700	.99680	1.00170	.98470	.99710	.99770	.99230	.99350	.99920	.99920
.202	10.600	61.53500	.99840	1.00380	.98790	1.00040	1.00060	.99390	.99630	1.00020	.99940
.203	15.900	62.17600	.99900	1.00470	.98880	1.00120	1.00110	.99680	.99840	1.00000	.99920
.203	16.900	62.14800	.99900	1.00470	.98890	1.00130	1.00120	.99720	.99860	1.00000	.99920
.203	18.000	62.28100	.99890	1.00460	.98880	1.00130	1.00110	.99740	.99860	.99990	.99900
.204	19.000	62.51000	.99870	1.00450	.98860	1.00110	1.00100	.99700	.99840	.99970	.99890
GRADIENT	-.01270	-.00014	-.00014	-.00035	-.00095	-.00108	-.00081	-.00051	-.00084	-.00054	-.00027

(EDM463) ( 29 SEP 73 )

NR-701 CRB B16C507J3C12A87+GP

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 2.000

REFERENCE DATA

SREF = 4.4119 SQ.FT. XGRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YGRP = .0000 INCHES  
BREF = 37.9349 INCHES ZGRP = 16.2000 INCHES  
SCALE = .0405

RUN NO. 463/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.600	60.78300	1.02990	.99960	.99970	.99980	.99970	1.00000	.99970	.99990	.99990
.201	.100	60.73600	1.03000	.99980	.99990	1.00000	.99980	1.00020	.99980	1.00010	1.00010
.201	5.400	61.10700	1.02980	.99950	.99970	.99980	.99960	1.00000	.99960	.99990	.99980
.202	10.600	61.53500	1.02960	.99930	.99950	.99960	.99940	.99980	.99940	.99970	.99970
.203	15.900	62.17600	1.02940	.99910	.99920	.99930	.99920	.99950	.99910	.99950	.99940
.203	16.900	62.14800	1.02940	.99910	.99920	.99930	.99920	.99950	.99920	.99950	.99940
.203	18.000	62.28100	.94010	.94410	.99660	.99910	.99910	.99940	.99900	.95790	.91080
.204	19.000	62.51000	.90960	.91540	.99430	.99880	.99890	.99920	.99850	.93780	.91070
GRADIENT	-.01270	.00003	.00003	.00005	.00005	.00005	.00003	.00005	.00005	.00005	.00005

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TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3G124874CP

(CDM464) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LTP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 464/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MPRI	MPRO	WC
.201	-3.600	61.01600	.48200	.48300	.47900	.47700	.42400	.42900	1.53790	1.52650	.28100
.201	.100	60.73200	.48000	.48300	.47800	.47700	.42200	.42900	1.50640	1.53080	.28000
.201	5.400	61.06200	.47900	.48300	.47700	.47700	.42200	.43000	1.50230	1.52870	.28100
.202	10.600	61.65900	.47900	.48200	.47700	.47600	.42400	.43100	1.50740	1.52470	.28200
.203	15.900	62.06300	.48000	.47900	.47700	.47300	.42400	.43300	1.49730	1.52970	.28300
.203	17.000	62.17800	.48000	.47800	.47700	.47200	.42400	.43500	1.49660	1.53480	.28300
.203	18.000	62.19200	.48100	.47500	.47600	.47100	.42400	.43700	1.49740	1.54230	.28300
.204	19.100	62.43400	.48300	.45700	.48000	.46900	.42500	.41400	1.49800	1.45960	.28400
GRADIENT	-0.07676	-0.00054	-0.00027	-0.00000	-0.00027	-0.00054	-0.00000	.00000	-0.00041	.00116	-0.00027

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LTP = 4.000  
 NBT = .000 RD = 2.000

NR-701 ORB B16C507J3G124874CP

(CDM464) ( 29 SEP 73 )

RUN NO. 464/ 0 RV/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CPSI	CPSO	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRTI	PRTO
.201	-3.600	-3.36800	-3.20100	-3.31100	-3.42400	-3.29300	-3.11000	.43300	.43600	.99900	1.00600
.201	.100	-3.42400	-3.22200	-3.36100	-3.48600	-3.32600	-3.12300	.43300	.43700	.99700	1.00610
.201	5.400	-3.39600	-3.21900	-3.33300	-3.45900	-3.32200	-3.10800	.43200	.43700	.99740	1.00610
.202	10.600	-3.32100	-3.21100	-3.26300	-3.37900	-3.33300	-3.10890	.43300	.43900	.99900	1.00570
.203	15.900	-3.27800	-3.26100	-3.22000	-3.33500	-3.41100	-3.11000	.43400	.44300	.99970	1.00550
.203	17.000	-3.26600	-3.29400	-3.20800	-3.32300	-3.45500	-3.13200	.43400	.44500	.99990	1.00560
.203	18.000	-3.27100	-3.31300	-3.21200	-3.32900	-3.68700	-3.33900	.43400	.45000	.99990	1.00150
.204	19.100	-3.28100	-4.96300	-3.22300	-3.34000	-5.23400	-4.69200	.43500	.44800	.99980	.95230
GRADIENT	-0.01514	-0.00568	-0.01676	-0.01351	-0.00784	-0.00351	-0.00000	.00000	.00027	-0.00046	.00003

NR-7J1 CRB 016C507J3G124874CP

(ETCNA64) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LRF = 19.2999 INCHES YARP = .0000 INCHES  
BRF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4.000
NBT	=	.000	RD	=	2.000

RUN NO.	464/	RVAL =	.20	GRADIENT INTERVAL =	-5.00/	5.00
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MOCH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	61.01600	.99940	1.00310	.98870	1.00040	.99790	.99670	.99830	.99940	.99850
.201	.100	60.73290	.99890	1.00390	.98540	.99660	.99520	.99490	.99540	.99770	.99790
.201	5.400	61.06700	.99650	1.00140	.98480	.99750	.99820	.99210	.99350	.99930	.99930
.202	10.600	61.65520	.99830	1.00380	.98780	1.00040	1.00040	.99380	.99620	1.00010	.99910
.203	15.900	62.08300	.99890	1.00460	.98680	1.00120	1.00100	.99670	.99840	.99990	.99910
.203	17.000	62.17800	.99920	1.00470	.98690	1.00140	1.00120	.99740	.99870	1.00000	.99910
.203	18.000	62.19200	.99970	1.00480	.98690	1.00130	1.00130	.99730	.99870	1.00000	.99920
.204	62.43400		.99890	1.00460	.98680	1.00130	1.00120	.99720	.99820	.99990	.99970
GRADIENT	-.07676		-.00014	.00032	-.00089	-.00103	-.00073	-.00049	-.00078	-.00046	-.00016

## REFERENCE DATA

SREF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .7000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2071 INCHES  
 SCALE = .0405

### PARAMETRIC DATA

BETA	=	.0000	GPP	=	154.0000
DE	=	.0000	DA	=	.0000
X/L	=	.0000	LIP	=	4.0000
NBT	=	.0000	RD	=	2.0000

RUN NO. 464/0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



TABULATED PROPULSION SOURCE DATA NAAL-701

DATE 05 DEC 73

(CDN465) ( 29 SEP 73 )

NR-701 ORB B16C507J3G12W87+CP

PARAMETRIC DATA

REFERENCE DATA

MAON = 4.4119 98.FT. YARP = 43.9974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LTP = 11.000  
NBT = .000 RD = 2.000

RUN NO. 465/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	Q	WIM	WON	QWIM	QWON	WIC	WOC	MFRI	MFRO	WC
MAON											
.201	-3.600	60.63200	.43900	.43900	.43400	.43200	.39800	.40600	1.41520	1.44180	.28100
.201	.100	60.75100	.43800	.44000	.43500	.43400	.39800	.40600	1.41130	1.44410	.28100
.201	5.400	61.09900	.43900	.43900	.43300	.43300	.39800	.40600	1.40650	1.44330	.28100
.202	10.800	61.68800	.43700	.43700	.43300	.43100	.39800	.41000	1.40630	1.44990	.28300
.203	15.900	62.01300	.44000	.40500	.43700	.41600	.40700	.42000	1.41060	1.47970	.28300
.203	16.900	62.23600	.44100	.40200	.43800	.41600	.40700	.42200	1.41030	1.48620	.28400
GRADIENT	-.02730		.00000	.00027	.00054		-.00054	-.00000	-.00105	.00062	.00000

(CDN465) ( 29 SEP 73 )

NR-701 ORB B16C507J3G12W87+CP

PARAMETRIC DATA

REFERENCE DATA

MAON = 4.4119 98.FT. YARP = 43.9974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LTP = 11.000  
NBT = .000 RD = 2.000

RUN NO. 465/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	QPSI	QPSO	QPS11	QPS12	QPSO1	QPSO2	MIN	MCN	PRT1	PRT0
MAON											
.201	-3.600	-2.77000	-2.64500	-2.79500	-2.74500	-2.68400	-2.60600	.39900	.40500	.99910	1.00610
.201	.100	-2.81700	-2.65900	-2.83400	-2.80000	-2.70900	-2.61900	.39900	.40600	.99730	1.00610
.201	5.400	-2.78200	-2.66100	-2.79900	-2.76600	-2.73700	-2.58500	.39800	.40700	.99750	1.00610
.202	10.800	-2.71700	-2.72100	-2.73900	-2.69500	-2.84300	-2.60000	.40000	.41200	.99920	1.00570
.203	15.900	-2.71600	-4.56200	-2.73900	-2.69300	-4.93400	-4.19000	.40200	.44600	.99990	.96350
.203	16.900	-2.72000	-4.84100	-2.74400	-2.69700	-5.25000	-4.43100	.40300	.45300	.99980	.95990
GRADIENT	-.01270		-.00378	-.01054	-.01486	-.00676	-.00081	-.00000	.00027	-.00049	.00000

## TABULATED PROPLSION SOURCE DATA NAAL-701

(EDM465) ( 29 SEP 73 )

NR-701 ORB B16C507J3G124874CP

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 11.000  
 NBT = .000 RD = 2.000

RUN NO. 465/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.83200	.99950	1.01520	.98870	1.00040	.99790	.99710	.99840	.99940	.99860
.201	.100	60.73100	.99880	1.00370	.98530	.99680	.99530	.99490	.99530	.99760	.99780
.201	5.400	61.09900	.99640	1.00160	.98520	.99780	.99840	.99250	.99380	.99940	.99930
.202	10.600	61.68800	.99840	1.00400	.98810	1.00060	1.00060	.99440	.99660	1.00010	.99930
.203	15.900	62.01300	.99910	1.00480	.98890	1.00140	1.00120	.99730	.99860	1.00010	.99920
.203	16.900	62.23600	.99890	1.00460	.98880	1.00130	1.00110	.99760	.99870	.99990	.99900
GRADIENT			-.00019	-.00041	-.00092	-.00103	-.00070	-.00059	-.00084	-.00049	-.00022

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = 11.000  
 NBT = .000 RD = 2.000

RUN NO. 465/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.600	60.83200	1.02990	.99970	.99980	.99990	.99970	1.00010	.99970	1.00000	1.00000
.201	.100	60.73100	1.02990	.99960	.99980	.99990	.99970	1.00010	.99970	1.00000	1.00000
.201	5.400	61.09900	1.02980	.99960	.99970	.99980	.99970	1.00000	.99960	.99990	.99990
.202	10.600	61.68800	1.02950	.99920	.99940	.99950	.99930	.99970	.99930	.99960	.99950
.203	15.900	62.01300	.97290	.96630	.99390	.99840	.99930	.99960	.99920	.91090	.91080
.203	16.900	62.23600	.95350	.94850	.98990	.99750	.99900	.99940	.99880	.91080	.91080
GRADIENT			-.02730	-.00000	.00000	-.00000	.00000	.00000	.00000	.00000	.00000

(EDM465) ( 29 SEP 73 )

NR-701 ORB B16C507J3G124874CP



NR-701 ORB B16C507J3612A67+CP

PARAMETRIC DATA

REF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000  
DE = .000  
X/L = .000  
NBT = .000

GPP = 154.000  
DA = .000  
LIP = .000  
RD = 2.000

RUN NO. 466/ 0 R/V/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	W/M	WOM	Q/M	Q/M	W/C	W/C	M/FRI	M/FRO	W/C
.201	-3.600	60.98800	.43900	.44000	.43300	.43300	.39500	.40600	1.40270	1.44180	.28200
.201	.200	60.77700	.43600	.44000	.43300	.43300	.39300	.40800	1.39670	1.45000	.28100
.202	5.400	61.23600	.43600	.43600	.43300	.43000	.39300	.40800	1.39310	1.44730	.28200
.202	10.600	61.66500	.43600	.42700	.43300	.42500	.39400	.41100	1.39410	1.45380	.28300
.203	15.900	62.18200	.43800	.41900	.43500	.42600	.39500	.40200	1.39240	1.41450	.28400
.203	17.000	62.24800	.43900	.41800	.43600	.42800	.39600	.39800	1.39290	1.40180	.28400
.203	18.000	62.21200	.43900	.41500	.43600	.42800	.39500	.39600	1.39340	1.39680	.28400
.204	19.000	62.44700	.43800	.41400	.43500	.42800	.39400	.39600	1.39330	1.39080	.28400
GRADIENT		- .05553	- .00079	.00000	- .00053	.00000	- .00053	.00000	- .00053	.00026	- .00026

NR-701 ORB B16C507J3612A67+CP

(CDN466) ( 29 SEP 75 )

PARAMETRIC DATA

REF = 4.4119 SQ.FT. YARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000  
DE = .000  
X/L = .000  
NBT = .000

GPP = 154.000  
DA = .000  
LIP = .000  
RD = 2.000

RUN NO. 466/ 0 R/V/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	QPS1	QPS0	QPS11	QPS12	QPS01	QPS11	MIN	MON	PRT1	PRT0
.201	-3.600	-2.49000	-2.65200	-2.66800	-2.71300	-2.82400	-2.479	.39800	.40600	.99920	1.01600
.201	.200	-2.70500	-2.69900	-2.69900	-2.75200	-2.84200	-2.537	.39400	.40800	.99740	1.01630
.202	5.400	-2.70900	-2.71100	-2.68100	-2.73700	-2.78800	-2.650	.39400	.40900	.99740	1.01540
.202	10.600	-2.64200	-3.11000	-2.61500	-2.67000	-3.15400	-3.05700	.39500	.41800	.99920	.99670
.203	15.900	-2.61300	-3.76300	-2.58400	-2.64300	-3.17400	-3.54800	.39800	.41700	.99980	.97440
.203	17.000	-2.61600	-3.94600	-2.58900	-2.64600	-4.20000	-3.64700	.39800	.41000	.99980	.96790
.203	18.000	-2.61200	-4.10600	-2.58100	-2.64200	-4.40500	-3.80700	.39800	.41700	1.00000	.96310
.204	19.000	-2.67500	-4.23500	-2.57400	-2.63600	-4.56800	-3.90800	.39800	.41800	.99970	.95890
GRADIENT		- .00921	- .01000	- .00816	- .01026	- .00474	- .01526	- .00053	.00053	- .00047	.00008

NR-701 ORB 816C507J3G12487+GP

(EDM466) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 98. FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 466/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.98800	.99940	1.00510	.98880	1.00070	.99830	.99720	.99850	.99970	.99870
.201	.200	60.77700	.99920	1.00390	.98550	.99670	.99540	.99510	.99550	.99770	.99790
.202	5.400	61.23600	.99650	1.00160	.98510	.99750	.99800	.99240	.99370	.99920	.99920
.202	10.600	61.66500	.99850	1.00410	.98810	1.00070	1.00050	.99460	.99680	1.00020	.99940
.203	15.900	62.18300	.99890	1.00470	.98880	1.00130	1.00110	.99730	.99830	.99990	.99910
.203	17.000	62.24800	.99890	1.00460	.98880	1.00130	1.00120	.99760	.99870	.99990	.99900
.203	18.000	62.21200	.99900	1.00480	.98900	1.00150	1.00130	.99790	.99890	1.00000	.99920
.204	19.000	62.44700	.99880	1.00450	.98870	1.00120	1.00110	.99740	.99860	.99980	.99890
GRADIENT			-.00011	-.00032	-.00087	-.000105	-.000076	-.000155	-.00079	-.000153	-.00021

NR-701 ORB 816C507J3G12487+GP

(EDM466) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 98. FT. YARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 466/ 0 RN/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.600	60.98800	1.02980	.99950	.99970	.99980	.99980	1.00000	.99960	.99990	.99990
.201	.200	60.77700	1.03000	.99980	.99990	1.00000	.99990	1.00020	.99980	1.00010	1.00010
.202	5.400	61.23600	1.02760	.99940	.99950	.99970	.99950	.99980	.99950	.99980	.99970
.202	10.600	61.66500	.99100	.99250	.99940	.99950	.99940	.99970	.99940	.99940	.99740
.203	15.900	62.18300	.92400	.95860	.99910	.99920	.99910	.99940	.99910	.99460	.97290
.203	17.000	62.24800	.90980	.94690	.99900	.99920	.99910	.99940	.99910	.99130	.96130
.203	18.000	62.21200	.90940	.93570	.99940	.99930	.99920	.99950	.99910	.98640	.94500
.204	19.000	62.44700	.90920	.92680	.99870	.99910	.99910	.99930	.99890	.98130	.93080
GRADIENT			-.00005	.00008	.00005	.00005	.00008	.00005	.00005	.00005	.00005



## PARAMETRIC DATA

BETA	=	.000	CAP	=	154.000
DE	=	.000	DA	=	.000
X/L	=	.250	LIP	=	.000
NGT	=	.000	RD	=	2.000

Variable	Estimate	Standard Error	t-Statistic	Prob >  t	Gradient Interval
Intercept	1.0000	0.0000	1.0000	1.0000	0.0000/ 0.0000
Age	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>2</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>3</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>4</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>5</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>6</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>7</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>8</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>9</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>10</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>11</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>12</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>13</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>14</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>15</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>16</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>17</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>18</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>19</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>20</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>21</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>22</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>23</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>24</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>25</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>26</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>27</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>28</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>29</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>30</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>31</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>32</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>33</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>34</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>35</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>36</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>37</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>38</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>39</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>40</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>41</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>42</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>43</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>44</sup>	0.0000	0.0000	0.0000	1.0000	0.0000/ 0.0000
Age <sup>45</sup>	0.0000	0.0000			

## REFERENCE DATA

WPP =	4.4119	INCHES	WPP =	43.9974	INCHES
WPP =	19.2999	INCHES	WPP =	.0000	INCHES
WPP =	37.9349	INCHES	WPP =	16.2000	INCHES
SCALE =	.0405				

[illegible]

### PARAMETRIC DATA

BETA	=	.000	CPP	=	154.000
DE	=	.000	DA	=	.000
VAL	=	.250	LIP	=	.000
MBY	=	.000	RO	=	2.000

95% CONFIDENCE INTERVAL =  $-5.127 \pm 5.093$

**PRESENT DATA**

SRRF = 4.4119 SQ.FT.      XRRP = 43.9974 INCHES  
 LRRF = 19.2999 INCHES      YRRP = .0100 INCHES  
 BRP = 37.9349 INCHES      ZRRP = 16.2000 INCHES  
 SCALF = .0405

[illegible]

NR-701 ORB 816C507J3C12J67+GP

(EDM467) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 90.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 XL = .250 LIP = .000  
 NBT = .000 RC = 2.000

RUN NO. 467/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.97900	.99940	1.00510	.98880	1.00080	.99910	.99880	.99900	.99930	.99890
.201	.100	60.85400	.99850	1.00350	.98580	.99740	.99610	.99600	.99590	.99770	.99760
.201	5.400	61.00200	.99690	1.00230	.98160	.99860	.99890	.99470	.99500	.99940	.99920
.202	10.600	61.49200	.99890	1.00460	.98860	1.00110	1.00100	.99700	.99800	1.00030	.99950
.203	15.900	62.23500	.99970	1.00470	.98890	1.00140	1.00120	.99870	.99890	.99990	.99910
.204	16.900	62.41900	.99980	1.00460	.98870	1.00120	1.00110	.99860	.99880	.99980	.99890
.203	18.000	62.31000	.99890	1.00460	.98880	1.00130	1.00120	.99880	.99890	.99990	.99970
.204	19.100	62.60300	.99880	1.00460	.98870	1.00130	1.00120	.99870	.99890	.99980	.99890
GRADIENT		-.03378	-.00024	-.00043	-.00081	-.00092	-.00081	-.00076	-.00084	-.00049	-.00024

NR-701 ORB 816C507J3C12J67+GP

(EDM467) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 90.FT. XGRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YGRP = .0000 INCHES  
 BRP = 37.9349 INCHES ZGRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 XL = .250 LIP = .000  
 NBT = .000 RC = 2.000

RUN NO. 467/ 0 RNVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.600	60.97900	1.02980	.99950	.99960	1.00090	.99970	.99990	.99960	.99990	.99980
.201	.100	60.85400	1.02990	.99970	.99980	1.00110	.99980	1.00010	.99970	1.00000	1.00020
.201	5.400	61.00200	1.02490	.99920	.99980	1.00140	.99980	1.00010	.99970	1.00000	1.00020
.202	10.600	61.49200	.99260	.98020	.99950	1.00130	.99960	.99990	.99950	.99930	.99860
.203	15.900	62.23500	.97070	.94880	.99790	1.00090	.99920	.99940	.97000	.98290	.96510
.204	16.900	62.41900	.96830	.94490	.99690	1.00050	.99910	.99930	.97000	.97500	.95760
.203	18.000	62.31000	.96630	.94150	.99530	1.00070	.99910	.99940	.99890	.96740	.95180
.204	19.100	62.60300	.96410	.93840	.99370	1.00050	.99920	.99940	.99870	.95870	.94560
GRADIENT		-.03378	.00003	.00005	.00005	.00005	.00003	.00005	.00003	.00003	.00005



NR-701 ORB 816C507J5G12A87\*CP

(EDM468) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 30.FT. 100RP = 43.5974 INCHES  
 URF = 19.2999 INCHES 100RP = .0000 INCHES  
 DRF = 37.9349 INCHES 200RP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 468/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

NAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.800	60.68000	.99980	1.00550	.98910	1.00090	.99080	.99900	.99930	.99980	.99890
.201	.100	60.79600	.99860	1.00350	.98540	.99690	.99570	.99550	.99550	.99760	.99770
.201	.100	60.61300	.99970	1.00400	.98670	.99750	.99670	.99620	.99610	.99820	.99820
.201	5.400	61.07500	.99720	1.00230	.98570	.99820	.99850	.99360	.99450	.99940	.99920
.202	10.800	61.70600	.99860	1.00420	.98830	1.00760	1.00080	.99610	.99750	1.00010	.99920
.203	15.900	62.21700	.99930	1.00470	.98890	1.00140	1.00130	.99850	.99890	1.00000	.99910
.203	17.000	62.38700	.99890	1.00360	.98840	1.00130	1.00110	.99860	.99890	.99990	.99970
.204	18.000	62.54100	.99880	1.00460	.98870	1.00120	1.00110	.99850	.99880	.99980	.99890
.204	19.100	62.46800	.99890	1.00470	.98890	1.00140	1.00130	.99860	.99920	.99990	.99970
GRADIENT		.00662	-.00727	-.00747	-.00792	-.00100	-.00080	-.00085	-.00095	-.00051	-.00026

NR-701 ORB 816C507J5G12A87\*CP

(EDM468) ( 29 SEP 73 )

## REFERENCE DATA

SRF = 4.4119 30.FT. 100RP = 43.5974 INCHES  
 URF = 19.2999 INCHES 100RP = .0000 INCHES  
 DRF = 37.9349 INCHES 200RP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 468/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

NAOH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.900	60.68000	1.00010	.99990	1.00000	1.00120	1.00010	1.00030	1.00000	1.00020	1.00020
.201	.100	60.79600	1.02990	.99960	.99970	1.00090	.99980	1.00000	.99970	.99990	.99990
.201	.100	60.61300	1.00010	.99990	1.00000	1.00110	1.00000	1.00030	.99990	1.00020	1.00020
.201	5.400	61.07500	1.02980	.99960	.99970	1.00110	.99970	1.00000	.99970	.99990	.99990
.202	10.800	61.70600	.94500	.94300	.99930	1.00080	.99930	.99960	.99930	.99940	.99930
.203	15.900	62.21700	.94760	.94430	.99880	1.00070	.99920	.99950	.99910	.99390	.98140
.203	17.000	62.38700	.94280	.93710	.99850	1.00060	.99910	.99940	.99970	.99050	.97170
.204	18.000	62.54100	.93820	.93040	.99820	1.00060	.99910	.99930	.99970	.98500	.95900
.204	19.100	62.46800	.93350	.92210	.99790	1.00070	.99920	.99940	.99910	.98160	.95060
GRADIENT		.00662	-.00003	-.00004	-.00004	-.00005	-.00005	-.00004	-.00005	-.00004	-.00004

DATE 05 DEC 73

TABULATED PROPELLION SOURCE DATA NAL-701

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NR-701 ORB 816C507J3612487+GP

(CDN469) ( 29 SEP 73 )

## REFERENCE DATA

REF = 4.4119 80.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES WARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 469/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WFM	WDM	Q/M	Q/M	W/C	W/C	MFR	MFR	W/C	W/C
.201	-3.630	60.99100	.36900	.37100	.36800	.36500	.34900	.36200	1.24090	1.28750	.26100	.26100
.201	.100	60.65300	.36700	.37100	.36900	.36500	.34700	.36200	1.23650	1.29460	.26000	.26000
.202	5.400	61.31400	.36700	.36900	.36900	.36400	.34800	.36200	1.23510	1.28460	.26200	.26200
.202	10.600	61.45200	.36800	.35700	.36500	.35600	.35000	.35500	1.23980	1.25930	.26200	.26200
.203	15.900	62.28400	.37000	.35100	.36700	.35500	.35100	.35600	1.23440	1.25450	.26400	.26400
.203	16.900	62.18500	.37000	.34900	.36700	.35500	.35100	.35700	1.23660	1.25740	.26300	.26300
.204	16.000	62.53000	.36900	.34700	.36600	.35400	.35000	.35400	1.23700	1.24560	.26400	.26400
.204	19.100	62.72200	.37200	.34500	.36700	.35300	.35100	.35300	1.23060	1.23720	.26500	.26500
GRADIENT									1.00108	.00192		

NR-701 ORB 816C507J3612487+GP

(CDN469) ( 29 SEP 73 )

## REFERENCE DATA

REF = 4.4119 80.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES WARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 469/ 0 RVL = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CP81	CP80	CP81	CP812	CP804	CP842	MIN	MCN	MCN	MCN	MCN
.201	-3.630	-1.67700	-1.77900	-1.78300	-1.83200	-1.91000	-1.64700	.34200	.35400	.35900	.35900	.35900
.201	.100	-1.84600	-1.80400	-1.82100	-1.87600	-1.92500	-1.68200	.34000	.35500	.35900	.35900	.35900
.202	5.400	-1.84700	-1.77000	-1.81200	-1.86700	-1.91000	-1.63600	.34200	.35400	.35900	.35900	.35900
.202	10.600	-1.75000	-2.16200	-1.78700	-1.81300	-2.00400	-2.02900	.34300	.35100	.35900	.35900	.35900
.203	15.900	-1.75000	-2.62100	-1.78000	-1.78000	-2.70500	-2.44200	.34400	.35800	.35900	.35900	.35900
.203	16.900	-1.75000	-2.75400	-1.73000	-1.78000	-2.97000	-2.53300	.34400	.36000	.35900	.35900	.35900
.204	16.000	-1.74000	-2.83600	-1.71100	-1.77000	-3.07000	-2.60700	.34500	.35900	.35900	.35900	.35900
.204	19.100	-1.74500	-2.93400	-1.71500	-1.77400	-3.11400	-2.68200	.34500	.35800	.35900	.35900	.35900
GRADIENT									1.00108	.00192		

NR-701 ORB B16C507J3G12U87\*CP

(EDM468) ( 29 SEP 75 )

## REFERENCE DATA

MREF = 4.4119 50 FT. MARR = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARR = .0200 INCHES  
 BREF = 37.9349 INCHES ZARR = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 M/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 468/ 0 RNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WAGON	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.870	60.99100	.99940	1.07510	.98870	1.02060	.99810	.99850	.99970	.99950	.99880
.201	.100	60.65300	.99920	1.07590	.98570	.99700	.99560	.99580	.99570	.99810	.99830
.202	5.400	61.31400	.99710	1.07220	.98550	.99800	.99840	.99320	.99420	.99930	.99910
.202	10.600	61.45200	.99890	1.07460	.98870	1.07120	1.02100	.99800	.99770	1.02040	.99950
.203	15.900	62.28400	.99890	1.07460	.98880	1.07130	1.02120	.99810	.99880	.99990	.99920
.203	16.900	62.14800	.99910	1.07480	.98970	1.07160	1.02140	.99860	.99910	1.02110	.99920
.204	18.000	62.53000	.99880	1.07450	.98870	1.07120	1.02110	.99830	.99870	.99980	.99890
.204	19.100	62.70000	.99870	1.07450	.98870	1.07110	1.02110	.99830	.99870	.99970	.99880
GRADIENT	-1.09135		-.02011	-.02032	-.02081	-.02097	-.02068	-.02075	-.02089	-.02038	-.02078

NR-701 ORB B16C507J3G12U87\*CP

(EDM469) ( 29 SEP 75 )

## REFERENCE DATA

MREF = 4.4119 50 FT. MARR = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARR = .0200 INCHES  
 BREF = 37.9349 INCHES ZARR = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CPP = 154.000  
 DE = .000 DA = .000  
 M/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 469/ 0 RNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WAGON	ALPHA	Q	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.870	60.99100	1.02970	.99950	1.02060	.99970	.99990	.99960	.99980	.99980
.201	.100	60.65300	1.03000	.99980	1.02100	.99990	.99990	.99980	1.02010	1.02000
.202	5.400	61.31400	1.02980	.99930	.99940	.99990	.99990	.99940	.99970	.99970
.202	10.600	61.45200	.98200	.98780	1.02100	.99970	.99970	.99960	.99990	.99980
.203	15.900	62.28400	.93140	.93070	1.02050	.99910	.99940	.99970	.99870	.99420
.203	16.900	62.08900	.92430	.94280	1.02060	.99940	.99980	.99930	.99700	.98980
.204	18.000	62.53000	.91690	.93360	1.02040	.99970	.99970	.99890	.99550	.98350
.204	19.100	62.70000	.91180	.92470	1.02030	.99970	.99920	.99890	.99320	.97530
GRADIENT	-1.09135		.02006	.02006	.02011	.02005	.02005	.02005	.02008	.02005



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TABULATED PRODUCTION SOURCE DATA NUAL-701

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NR-701 ORB B16C507J36124674CP

(CONMAT) ( 29 SEP 73 )

REFERENCE DATA

BRDF = 4.4119 90.FT. WARP = 43.9974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
KVL = .250 LIP = .000  
NBT = .000 RD = 2.000

RUN NO. 410/ 0 RNVL = .20 GRADIENT INTERVAL = -3.00/ 5.00

MAON	ALPHA	WEM	WOM	QW1	QW2	WIC	WOC	WRT	WRO	WC
.201	-3.600	60.71700	.43600	.43600	.43600	.39400	.40500	1.40470	1.44440	.26000
.201	.100	61.84970	.43600	.43600	.43600	.39300	.40500	1.39970	1.44340	.26000
.202	5.400	61.22100	.43600	.43600	.43600	.39300	.40500	1.39810	1.44190	.26100
.202	10.600	61.46100	.43600	.43600	.42600	.39500	.40100	1.40250	1.42060	.26200
.203	15.900	62.27200	.43600	.43600	.42400	.39500	.40100	1.39420	1.41420	.26400
.203	17.000	62.19600	.43600	.43600	.42400	.39500	.40100	1.39480	1.41850	.26300
.204	18.000	62.48400	.43600	.43600	.42300	.39500	.40300	1.39380	1.41860	.26400
.205	19.100	62.33600	.43600	.43600	.42300	.39500	.40400	1.39340	1.42360	.26400
GRADIENT	.03568	-.00027	.00000	-.00027	.00000	-.00027	.00000	-.000135	-.00027	.00000

REFERENCE DATA

BRDF = 4.4119 90.FT. WARP = 43.9974 INCHES  
LREF = 19.2999 INCHES WARP = .0000 INCHES  
BRDF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0405

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
KVL = .250 LIP = .000  
NBT = .000 RD = 2.000

NR-701 ORB B16C507J36124674CP

(CONMAT) ( 29 SEP 73 )

PARAMETRIC DATA

RUN NO. 410/ 0 RNVL = .20 GRADIENT INTERVAL = -3.00/ 5.00

MAON	ALPHA	CPS1	CPS2	CPS11	CPS12	CPS21	CPS22	MIN	MON	PRT1	PRT2
.201	-3.600	-2.69200	-2.65300	-2.66600	-2.71700	-2.62100	-2.48200	.39500	.40620	.99940	1.00160
.201	.100	-2.70000	-2.65600	-2.67000	-2.72500	-2.63600	-2.47600	.39500	.40620	.99980	1.00160
.202	5.400	-2.70000	-2.65300	-2.67900	-2.73600	-2.63600	-2.49600	.39600	.40720	.99820	1.00180
.202	10.600	-2.67600	-2.66200	-2.64800	-2.70400	-2.64100	-2.49000	.39700	.40620	.99960	.99930
.203	15.900	-2.60300	-3.54800	-2.59600	-2.65300	-3.59900	-3.40900	.39700	.41500	.99940	.97970
.203	17.000	-2.61900	-3.62800	-2.58800	-2.64900	-3.51100	-3.51100	.39700	.41700	1.00000	.97690
.204	18.000	-2.60900	-3.78300	-2.57600	-2.63500	-3.51100	-3.58400	.39700	.42000	.99980	.97460
.205	19.100	-2.61100	-3.87400	-2.58000	-2.64100	-4.10200	-3.66700	.39700	.42200	1.00000	.97310
GRADIENT	-.03120	-.00081	-.00081	-.00093	-.00081	-.000405	.00216	.00000	-.00000	-.00043	-.00005

NR-701 ORB B16C507J3G12487+GP

(EDN470) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 470/ 0 F.V/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.600	60.71700	.99970	1.000540	.98970	1.00070	.99800	.99870	.99920	.99970	.99890
.201	.100	60.84900	.99910	1.00420	.98570	.99700	.99580	.99580	.99580	.99830	.99830
.202	5.400	61.23100	.99780	1.00280	.98590	.99830	.99860	.99350	.99460	.99970	.99940
.202	10.600	61.48100	.99880	1.00440	.98550	1.00100	1.00100	.99560	.99740	1.00030	.99950
.203	15.900	62.27200	.99880	1.00460	.98880	1.00120	1.00110	.99790	.99860	.99390	.99900
.203	17.000	62.19600	.99910	1.00480	.98900	1.00150	1.00130	.99820	.99890	1.00000	.99920
.204	18.000	62.48400	.99880	1.00460	.98870	1.00120	1.00110	.99810	.99870	.99980	.99890
.203	19.100	62.33600	.99900	1.00480	.98900	1.00150	1.00140	.99840	.99900	1.00000	.99910
GRADIENT	.03568		-.00016	-.00032	-.00089	-.00100	-.00065	-.00078	-.00092	-.00038	-.00011

NR-701 ORB B16C507J3G12487+GP

(EDN470) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 470/ 0 R.V/L = .20 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.600	60.71700	1.03000	.99980	.99990	1.00070	1.00000	1.00020	.99990	1.00010	1.00010
.201	.100	60.84900	1.02980	.99960	.99970	1.00050	.99970	1.00070	.99970	.99990	.99990
.202	5.400	61.23100	1.02970	.99950	.99960	1.00060	.99970	.99990	.99960	.99980	.99980
.202	10.600	61.48100	.98200	.99050	.99950	1.00070	.99960	.99990	.99950	.99980	.99960
.203	15.900	62.27200	.92270	.95990	.99900	1.00020	.99910	.99940	.99900	.99880	.99720
.203	17.000	62.19600	.91370	.95270	.99920	1.00040	.99930	.99960	.99920	.99830	.99530
.204	18.000	62.48400	.90950	.94630	.99900	1.00010	.99910	.99930	.99900	.99730	.99150
.203	19.100	62.33600	.90950	.93920	.99910	1.00040	.99930	.99950	.99920	.99660	.98700
GRADIENT	.03568		-.00015	-.00005	-.00005	-.00005	-.00008	-.00005	-.00005	-.00005	-.00005



NR-701 CRB B16C507J3G12W87+GP

(CDM471) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 471/ 0 RNVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 L/P = .000  
 NBT = .000 RD = 2.000

MACH	ALPHA	Q	WIM	WOM	QWIM	QWOM	WIC	WOC	MFR1	MFR0	VC
.165	-3.600	40.76200	.42900	.42900	.43100	.42800	.38600	.39600	1.68080	1.72580	.23000
.164	.100	40.57400	.42700	.42800	.42800	.42600	.38500	.39700	1.68000	1.73030	.22900
.164	5.300	40.59900	.42800	.42800	.42900	.42600	.38600	.39800	1.68530	1.73640	.22900
.165	10.500	41.03100	.43000	.41900	.43100	.42100	.38800	.39500	1.68290	1.71230	.23000
.166	15.800	41.49700	.42900	.41300	.43100	.41900	.38800	.39400	1.67390	1.70230	.23100
.166	16.900	41.43600	.43100	.41300	.43200	.41900	.38800	.39500	1.67680	1.70620	.23100
.166	17.900	41.57900	.43100	.41200	.43200	.42000	.38800	.39500	1.67440	1.70490	.23200
.167	18.900	41.70700	.43000	.41000	.43100	.41900	.38800	.39500	1.67110	1.69970	.23200
GRADIENT		-.05081	-.00054	-.00027	-.00081	-.00054	-.00027	.00027	-.00022	.00122	-.00027

IR-701 CRB B16C507J3G12W87+GP

(CDM471) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 L/P = .000  
 NBT = .000 RD = 2.000

RUN NO. 471/ 0 RNVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CPS0	CPS11	CPS12	CPS01	CPS02	MIN	MON	PRTI	PRTO
.165	-3.600	-4.33100	-4.27100	-4.29200	-4.37100	-4.51100	-4.10000	.39000	.40000	.99930	1.00580
.164	.100	-4.36200	-4.29200	-4.32000	-4.40500	-4.54800	-4.03700	.38900	.40000	.99870	1.00590
.164	5.300	-4.37000	-4.33200	-4.33600	-4.42200	-4.55100	-4.11200	.39100	.40200	.99900	1.00610
.165	10.500	-4.33600	-4.29300	-4.29300	-4.37800	-4.55200	-4.16300	.39200	.40100	.99930	.99880
.166	15.800	-4.25900	-5.15700	-4.21500	-4.30400	-5.21300	-5.10200	.39200	.40600	.99930	.98820
.166	16.900	-4.27000	-5.31800	-4.22500	-4.31500	-5.41000	-5.22500	.39300	.40800	1.00000	.98600
.166	17.900	-4.26000	-5.41400	-4.21400	-4.30700	-5.52400	-5.30300	.39300	.41000	.99990	.98420
.167	18.900	-4.24700	-5.48200	-4.20000	-4.29300	-5.60200	-5.36200	.39300	.41000	.99980	.98240
GRADIENT		-.00838	-.00568	-.00757	-.00019	-.00100	-.00189	-.00027	.00000	-.00016	.00003





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NR-701 ORB B16C507J3612A87+GP

(CONNA72) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 90.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .250 LIP = .000  
NBT = .000 RD = 2.000

RUN NO. 472/ 0 RVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WIM	WOM	QVIM	QVOM	WIC	WOC	MERI	MERO	WC
.164	-3.600	40.54600	.35800	.35700	.35900	.35600	.33800	.35000	1.47430	1.52730	.22900
.164	.100	40.59200	.35600	.35700	.35700	.35600	.33700	.35000	1.47070	1.52860	.22900
.165	5.300	40.78500	.35500	.35600	.35700	.35400	.33700	.35100	1.46880	1.52610	.23000
.165	10.500	41.11900	.35800	.34800	.35900	.34900	.34000	.34600	1.47210	1.49920	.23100
.166	15.800	41.50500	.35800	.34300	.35900	.34800	.33900	.34600	1.46440	1.49230	.23200
.166	16.800	41.39800	.35900	.34200	.35900	.34700	.34000	.34600	1.46770	1.49630	.23100
.166	17.900	41.51900	.35800	.33800	.35700	.34500	.33900	.34400	1.46470	1.48570	.23200
.166	19.000	41.58100	.35800	.33800	.35900	.34600	.33900	.34200	1.46300	1.47590	.23200
GRADIENT		.01243	-.00054	-.00000	-.00054	.00000	-.00027	.00000	-.00097	.00035	.00000

NR-701 ORB B16C507J3612A87+GP

(CONNA72) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 90.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .250 LIP = .000  
NBT = .000 RD = 2.000

RUN NO. 472/ 0 RVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	QPSI	QPSO	QPS11	QPS12	QPSO1	QPSO2	MIN	MON	PRTI	PRTO
.164	-3.600	-2.96800	-2.91400	-2.93200	-3.00400	-3.00800	-2.73000	.33300	.34500	.99960	1.00600
.164	.100	-3.01100	-2.93100	-2.97100	-3.05000	-3.12600	-2.73900	.33300	.34500	.99860	1.00590
.165	5.300	-2.99500	-2.92900	-2.95600	-3.03400	-3.11100	-2.74800	.33300	.34500	.99870	1.00570
.165	10.500	-2.95600	-3.19800	-2.91600	-2.99600	-3.20200	-3.19300	.33500	.34300	.99970	.99830
.166	15.800	-2.90200	-3.76500	-2.86000	-2.94400	-3.91600	-3.61400	.33500	.34700	.99990	.98770
.166	16.800	-2.90200	-3.91000	-2.87400	-2.95900	-4.09300	-3.72700	.33500	.34900	1.00070	.98560
.166	17.900	-2.91700	-4.00600	-2.85700	-2.94300	-4.20800	-3.80300	.33500	.34700	1.00700	.98270
.166	19.000	-2.89100	-4.12700	-2.84900	-2.93400	-4.36100	-3.89300	.33500	.34600	1.00000	.97960
GRADIENT		-.01162	-.00459	-.01054	-.01243	-.00757	-.00135	.00000	.00000	-.00027	-.00003

NR-701: ORB 816C507J36124874CP

(EDM472) ( 29 SEP 75 )

## REFERENCE DATA

SRPF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRPF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

BETA =  
 DE =  
 Y/L =  
 NBT =

.000 GPP = 154.000  
 .000 DA = .000  
 .250 LIP = .000  
 .000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 472/ 0 RNL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.670	40.54670	.99940	1.00580	.99890	1.00100	.99920	.99860	.99920	.99980	.99970
.164	.100	40.53270	.99990	1.00430	.99670	.99850	.99760	.99680	.99680	.99890	.99880
.165	5.300	40.76570	.99800	1.00330	.98660	.99920	.99950	.99520	.99580	.99970	.99920
.165	10.970	41.11970	.99890	1.00240	.98840	1.00110	1.00110	.99670	.99790	1.00020	.99930
.166	15.800	41.51970	.99890	1.00470	.98870	1.00130	.99820	.99820	.99820	.99990	.99910
.166	16.800	41.51970	.99890	1.00470	.98880	1.00140	.99820	.99890	.99890	1.00000	.99910
.166	17.900	41.51970	.99890	1.00470	.98880	1.00140	.99820	.99890	.99890	1.00000	.99910
.166	18.000	41.51970	.99890	1.00470	.98880	1.00140	.99820	.99890	.99890	1.00000	.99910
.166	19.000	41.51970	.99890	1.00470	.98880	1.00140	.99820	.99890	.99890	1.00000	.99910
GRADIENT	.01243		-.00111	-.00024	-.00059	-.00058	-.00043	-.00049	-.00065	-.00024	-.00005

NR-701: ORB 816C507J36124874CP

(EDM472) ( 29 SEP 75 )

## REFERENCE DATA

SRPF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BRPF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

BETA =  
 DE =  
 Y/L =  
 NBT =

.000 GPP = 154.000  
 .000 DA = .000  
 .250 LIP = .000  
 .000 RD = 2.000

## PARAMETRIC DATA

RUN NO. 472/ 0 RNL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.164	-3.670	40.54670	1.00000	.99950	.99960	.99980	.99970	.99980	.99960	.99980	.99980
.164	.100	40.58270	1.00000	.99940	.99950	.99960	.99970	.99970	.99950	.99970	.99980
.165	5.300	40.78500	1.00000	.99920	.99930	.99940	.99950	.99950	.99930	.99950	.99950
.165	10.900	41.11900	.99950	.99390	.99940	.99950	.99950	.99960	.99930	.99950	.99950
.166	15.800	41.50900	.99950	.97210	.99910	.99920	.99930	.99930	.99910	.99950	.99950
.166	16.800	41.39800	.94970	.96690	.99910	.99930	.99940	.99940	.99910	.99880	.99860
.166	17.900	41.51900	.94110	.98810	.99910	.99920	.99940	.99940	.99910	.99840	.99830
.166	18.000	41.51900	.93440	.94990	.99910	.99920	.99930	.99930	.99910	.99750	.98950
.166	19.000	41.56100	.93440	.94990	.99910	.99920	.99930	.99930	.99910	.99750	.98950
GRADIENT	.01243		-.00003	-.00003	-.00003	-.00005	-.00003	-.00003	-.00003	-.00003	-.00005



DATE 05 DEC 73

TABULATED POPULATION SOURCE DATA MAIL-701

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WP-701 OPS 8160507351208740P

(CDM473) (29 SEP 73)

REFERENCE DATA

SRF = 4.4119 50.07. 7000 = 43.9974 INCHES  
LRF = 19.2999 INCHES 7000 = .0000 INCHES  
BRF = 37.9349 INCHES 2000 = 16.2000 INCHES  
SCALE = 1.005

PARAMETRIC DATA

BETA = .000 OP = 154.000  
DE = .000 DA = .000  
XL = .290 LI = .000  
BT = .000 PD = 2.000

PJN NO. 473/0 SNL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	G	WCH	WCH	QUM	QUM	WIC	WOC	WPI	WPO	WC
.164	-3.500	40.35400	.27000	.27000	.27000	.27000	.27000	.29000	1.19490	1.26400	.22900
.164	.100	40.34800	.27000	.27000	.27000	.27000	.27000	.28900	1.18550	1.26330	.22900
.165	5.900	40.34200	.27000	.27000	.27000	.27000	.27000	.28900	1.18100	1.25630	.23000
.165	10.900	40.33600	.27000	.27000	.27000	.27000	.27000	.28900	1.17650	1.25180	.23000
.166	15.900	41.32300	.27000	.27000	.27000	.27000	.27000	.28900	1.17200	1.22560	.23000
.166	16.800	41.31700	.27000	.27000	.27000	.27000	.27000	.28900	1.16750	1.22000	.23000
.167	17.900	41.31100	.27000	.27000	.27000	.27000	.27000	.28900	1.16300	1.21180	.23000
.166	19.000	41.30500	.27000	.27000	.27000	.27000	.27000	.28900	1.15850	1.19750	.23000
GRADIENT									1.15400	1.17830	.23000

WP-701 OPS 8160507351208740P

(CDM473) (29 SEP 73)

REFERENCE DATA

SRF = 4.4119 50.07. 7000 = 43.9974 INCHES  
LRF = 19.2999 INCHES 7000 = .0000 INCHES  
BRF = 37.9349 INCHES 2000 = 16.2000 INCHES  
SCALE = 1.005

PARAMETRIC DATA

BETA = .000 OP = 154.000  
DE = .000 DA = .000  
XL = .290 LI = .000  
BT = .000 PD = 2.000

PJN NO. 473/0 SNL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	G	WCH	WCH	QUM	QUM	WIC	WOC	WPI	WPO	WC
.164	-3.500	40.35400	.27000	.27000	.27000	.27000	.27000	.29000	1.19490	1.26400	.22900
.164	.100	40.34800	.27000	.27000	.27000	.27000	.27000	.28900	1.18550	1.26330	.22900
.165	5.900	40.34200	.27000	.27000	.27000	.27000	.27000	.28900	1.18100	1.25630	.23000
.165	10.900	40.33600	.27000	.27000	.27000	.27000	.27000	.28900	1.17650	1.25180	.23000
.166	15.900	41.32300	.27000	.27000	.27000	.27000	.27000	.28900	1.17200	1.22560	.23000
.166	16.800	41.31700	.27000	.27000	.27000	.27000	.27000	.28900	1.16750	1.22000	.23000
.167	17.900	41.31100	.27000	.27000	.27000	.27000	.27000	.28900	1.16300	1.21180	.23000
.166	19.000	41.30500	.27000	.27000	.27000	.27000	.27000	.28900	1.15850	1.19750	.23000
GRADIENT									1.15400	1.17830	.23000

TABULATED PROPELLION SOURCE DATA NAAL-701

(EDM473) ( 29 SEP 73 )

NR-701 ORB 818C907J361248740P

## REFERENCE DATA

SREF = 4.4119 SQ.FT. APP = 43.5974 INCHES  
 UREF = 19.2999 INCHES MRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 14.2000 INCHES  
 SCALE = .5405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 L/P = .000  
 NBT = .000 RD = 2.000

RUN NO. 473 / 0 ENL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.670	40.55400	.99940	1.00120	.98880	1.00100	.99950	.99880	.99910	.99980	.99900
.164	.170	40.59870	.99980	1.00420	.98680	.99850	.99780	.99680	.99690	.99860	.99850
.165	5.300	40.66400	.99780	1.00300	.98690	.99940	.99950	.99540	.99610	.99970	.99920
.165	10.970	40.69700	.99890	1.00400	.98870	1.00130	.99710	.99710	.99830	1.00030	.99940
.166	15.700	41.52300	.99880	1.00490	.98870	1.00130	.99840	.99840	.99880	.99980	.99970
.166	16.870	41.31900	.99910	1.00480	.98870	1.00130	.99870	.99870	.99910	1.00010	.99920
.167	17.970	41.68000	.99890	1.00480	.98870	1.00130	.99860	.99860	.99890	.99980	.99970
.166	19.000	41.53000	.99970	1.00480	.98870	1.00130	.99860	.99860	.99970	1.00000	.99910
GRADIENT	.00919		-.00015	-.00027	-.00059	-.00068	-.00051	-.00054	-.00059	-.00032	-.00014

NR-701 ORB 818C907J361248740P

(EDM473) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. APP = 43.5974 INCHES  
 UREF = 19.2999 INCHES MRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 14.2000 INCHES  
 SCALE = .5405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 L/P = .000  
 NBT = .000 RD = 2.000

RUN NO. 473 / 0 ENL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.164	-3.670	40.55400	1.00000	.99990	.99990	.99970	.99980	.99980	.99980	.99980	.99970
.164	.170	40.59870	1.00000	.99990	.99990	.99980	.99970	.99970	.99940	.99980	.99980
.165	5.300	40.66400	1.00000	.99990	.99990	.99950	.99990	.99980	.99940	.99980	.99950
.165	10.970	40.69700	.99990	.99990	.99990	.99980	.99970	.99970	.99940	.99980	.99980
.166	15.700	41.52300	.99990	.99990	.99990	.99910	.99980	.99970	.99930	.99970	.99970
.166	16.870	41.31900	.99990	.99990	.99990	.99940	.99970	.99970	.99930	.99970	.99970
.167	17.970	41.68000	.99990	.99990	.99990	.99940	.99970	.99970	.99930	.99970	.99970
.166	19.000	41.53000	.99990	.99990	.99990	.99940	.99970	.99970	.99930	.99970	.99970
GRADIENT	.00919		-.00003	-.00005	-.00003	-.00003	-.00003	-.00003	-.00005	-.00005	-.00003



DATE 05 DEC 73

TABULATED PROPLUSION SOURCE DATA NAAL-T01

(EDN474) ( 29 SEP 73 )

NR-T01 ORB B16C507J3G12487+GP

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 474/ 0 RVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.164	-3.600	40.54700	.99940	1.07310	.98890	1.07110	.99980	.99890	.99910	.99980	.99890
.164	.100	40.66900	.99860	1.07390	.98660	.99860	.99770	.99890	.99880	.99950	.99820
.165	5.300	40.82300	.99750	1.07300	.98380	.99940	.99950	.99860	.99820	.99950	.99910
.165	10.900	41.04800	.99840	1.07450	.98350	1.07110	1.00100	.99740	.99820	1.00200	.99920
.166	15.800	41.47900	.99890	1.07470	.98370	1.07140	1.00120	.99870	.99890	.99990	.99970
.166	16.800	41.41500	.99970	1.07480	.98280	1.07140	1.00130	.99880	.99900	1.00200	.99910
.165	17.900	41.45100	.99970	1.07480	.98280	1.07140	1.00130	.99890	.99910	1.00200	.99910
.165	19.000	41.76200	.99880	1.07450	.98280	1.07130	1.00110	.99870	.99880	.99980	.99890
.167	GRADIENT	.03297	-1.07022	-1.07032	-1.07062	-1.07068	-1.07057	-1.07054	-1.07062	-1.07035	-1.07019

(FDN474) ( 29 SEP 73 )

NR-T01 ORB B16C507J3G12487+GP

## PARAMETRIC DATA

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = .000  
 NBT = .000 RD = 2.000

RUN NO. 474/ 0 RVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.164	-3.600	40.54700	1.07000	.99950	.99960	.99970	.99970	.99980	.99960	.99980	.99980
.164	.100	40.66900	1.02980	.99920	.99940	.99950	.99950	.99960	.99930	.99950	.99950
.165	5.300	40.89300	1.02680	.99910	.99940	.99950	.99950	.99960	.99940	.99950	.99950
.165	10.900	41.04800	1.07350	.98760	.99920	.99940	.99950	.99940	.99920	.99920	.99910
.166	15.800	41.47900	.98470	.96350	.99890	.99920	.99930	.99970	.99970	.99250	.98060
.166	16.800	41.41500	.98220	.95930	.99820	.99930	.99940	.99910	.99910	.98960	.97430
.166	17.900	41.45100	.98010	.95590	.99780	.99930	.99940	.99910	.99910	.98300	.96720
.166	19.000	41.76200	.97800	.95330	.99750	.99910	.99920	.99890	.99890	.97750	.96230
.167	GRADIENT	.03297	-1.07005	-1.07008	-1.07005	-1.07005	-1.07005	-1.07005	-1.07008	-1.07008	-1.07008



NR-75; ORB B18C5C7J3G12W87+CP

(CPM473) (54 PMD) (29 SEP 73)

**REFERENCE DATA**

NOV =	4,4119	NOV =	43,5974	NOV =
JAN =	19,2999	NOV =	1,0000	NOV =
NOV =	37,9349	NOV =	16,2070	NOV =
SCALE =	1000			

BETA	=	.000	GPP	=	194,000
DE	=	.000	DA	=	.000
X/L	=	.290	LIP	=	.000
NGT	=	.000	RD	=	2,000

### PARAMETRIC DATA

RUN NO. 475/ 0 RNL = .12 GRADIENT INTERVAL = -5.00/ 5.00

PARAM	ALPHA	$\theta$	WM	WM	C/M	C/M	W/C	W/C	W/F1	W/F0	W/C
.117	-3.40%	20.4440%	.1010%	.1020%	.1030%	.1030%	.1000%	.2100%	1.1530	1.20020	.16300
.116	.11%	25.3697%	.1010%	.1030%	.1030%	.1040%	.1070%	.2100%	1.1530	1.29490	.16200
.117	5.90%	25.4200%	.1010%	.1010%	.1030%	.1020%	.1080%	.2100%	1.1530	1.29090	.16300
.117	10.40%	26.5187%	.1010%	.1770%	.1030%	.1700%	.1940%	.2760%	1.1640	1.26660	.16300
.116	15.60%	26.8740%	.1030%	.1740%	.1030%	.1770%	.1910%	.2070%	1.1690	1.25930	.16400
.117	16.70%	26.6490%	.1030%	.1720%	.1030%	.1750%	.1910%	.2090%	1.1600	1.25343	.16300
.116	17.80%	26.0247%	.1030%	.1720%	.1030%	.1790%	.1910%	.2030%	1.1610	1.23790	.16400
.116	18.90%	26.9360%	.1030%	.1710%	.1030%	.1740%	.1910%	.2030%	1.1610	1.22310	.16300
GRADIENT			.0000%	.0000%	.0000%	.0000%	-.0000%	.0000%	-.0000	-.0000	-.0000

**PLATE INDEX**

```

SPOF = 4.4119 SG.FT. APP = 42.5974 INCHES
LPOF = 19.2995 INCHES APP = .0000 INCHES
RPOF = 37.9349 INCHES APP = 16.2000 INCHES
SCALE = .0003

```

BETA	=	.0000	QPP	=	154.0000
DE	=	.0000	CA	=	.0000
VAL	=	.2500	LIP	=	.0000
SET	=	.0000	EO	=	2.0000

PARAMETRIC DATA

FD-302 (Rev. 11-27-60)

(56M65) (29 SEP 73)

PAGE NO. 000798 . 47% . 2000 : 12 . PATIENT INTERVAL = - 60 / 5 . 00

[illegible]

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## TABULATED PRODUCTION SOURCE DATA NAAL-701

(EDM475) ( 29 SEP 73 )

NR-701 ORB B16C507J3512487\*CP

## REFERENCE DATA

SREF = 4.4119 50.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES WARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 475/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.400	20.44400	.99930	1.00150	.98890	1.00190	1.00070	.99910	.99930	1.00010	.99920
.116	.100	20.38300	.99910	1.00140	.98800	1.00130	.99980	.99830	.99830	.99960	.99930
.117	5.300	20.45200	.99860	1.00430	.98790	1.00160	1.00070	.99760	.99790	1.00010	.99940
.117	10.400	20.50800	.99910	1.00490	.98890	1.00190	1.00140	.99840	.99890	1.00030	.99940
.118	15.600	20.56400	.99910	1.00500	.98890	1.00160	1.00190	.99910	.99920	1.00020	.99920
.117	16.700	20.64900	.99920	1.00510	.98990	1.00170	1.00160	.99920	.99940	1.00030	.99940
.118	17.800	20.82400	.99910	1.00490	.98890	1.00160	1.00190	.99920	.99920	1.00010	.99920
.114	18.900	20.93600	.99970	1.00490	.98890	1.00160	1.00190	.99890	.99920	1.00010	.99920
GRADIENT			-.00743	-.00011	-.00026	-.00034	-.00026	-.00023	-.00029	-.00014	-.00006

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LTP = .000  
 NBT = .000 RO = 2.000

NR-701 ORB B16C507J3512487\*CP

(EDM475) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 50.FT. WARP = 43.5974 INCHES  
 LREF = 19.2999 INCHES WARP = .0000 INCHES  
 BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 475/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.117	-3.400	20.44400	1.00020	.99940	.99960	.99970	.99970	.99970	.99950	.99970	.99960
.116	.100	20.38300	1.00020	.99940	.99960	.99960	.99970	.99970	.99950	.99960	.99960
.117	5.300	20.45200	1.00000	.99940	.99960	.99960	.99960	.99970	.99950	.99960	.99960
.117	10.400	20.50800	1.00140	.99940	.99960	.99960	.99950	.99960	.99940	.99950	.99950
.118	15.600	20.64900	.99960	.98070	.99940	.99940	.99950	.99940	.99930	.99920	.99490
.117	16.700	20.64900	.99970	.97830	.99940	.99960	.99950	.99960	.99940	.99930	.99170
.118	17.800	20.82400	.99930	.97470	.99920	.99940	.99940	.99940	.99930	.99930	.98480
.118	18.900	20.93600	.99920	.97210	.99900	.99940	.99930	.99940	.99920	.99910	.98480
GRADIENT			.00743	-.00000	.00000	-.00003	.00000	.00000	.00000	-.00003	.00000

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LTP = .000  
 NBT = .000 F = 2.000



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TABULATED PRODUCTION SOURCE DATA NUAL-701

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NR-701 ORB 216C507J3612487+CP

(DDMM78) (29 SEP 73)

REFERENCE DATA

BRD = 4.4119 90.07. WARP = 43.9974 INCHES  
LWD = 19.2999 INCHES THRP = .0000 INCHES  
BRD = 37.9349 INCHES ZGRP = 16.2070 INCHES  
SCALE = .0405

RUN NO. 476/ 0 RVAL = .12 GRADIENT INTERVAL = -3.00/ 5.00

WMOH	ALPHA	0	WIM	WOM	QUM	QUM	WTC	WOC	MPRI	MPRO	WC
.117	-3.400	20.84100	.26000	.26800	.26000	.26700	.26400	.27900	1.61210	1.70370	.18000
.118	.100	20.34800	.26300	.26400	.26800	.26900	.26300	.27900	1.61970	1.71440	.18200
.119	5.200	20.43970	.26800	.26400	.26900	.26900	.26400	.27900	1.62080	1.71170	.18300
.117	10.400	20.52400	.26700	.26000	.26900	.26200	.26500	.27500	1.62660	1.68530	.18300
.117	15.600	20.66970	.26800	.25900	.26900	.25900	.26800	.27500	1.62330	1.67840	.18400
.117	16.700	20.74400	.26600	.25900	.26800	.25900	.26800	.27400	1.62280	1.67220	.18400
.118	17.800	20.87300	.26500	.25400	.26800	.25800	.26600	.27400	1.61850	1.66670	.18400
.118	18.900	20.89970	.26900	.25200	.26800	.25900	.26700	.27400	1.61910	1.66340	.18500
GRADIENT	-5.6371	-1.0757	-1.0757	-1.0757	-1.0757	-1.0757	-1.0757	.0000	.00217	.00306	-.00729

PARAMETRIC DATA

BETA = .000 OPP = 154.000  
DE = .000 DA = .000  
W/L = .250 LTP = .000  
WBT = .000 RD = 2.000

REFERENCE DATA

BRD = 4.4119 90.07. WARP = 43.9974 INCHES  
LWD = 19.2999 INCHES THRP = .0000 INCHES  
BRD = 37.9349 INCHES ZGRP = 16.2070 INCHES  
SCALE = .0405

RUN NO. 476/ 0 RVAL = .12 GRADIENT INTERVAL = -3.00/ 5.00

WMOH	ALPHA	0	WIM	WOM	QUM	QUM	WTC	WOC	MPRI	MPRO	WC
.117	-3.400	20.84100	.26000	.26800	.26000	.26700	.26400	.27900	1.61210	1.70370	.18000
.118	.100	20.34800	.26300	.26400	.26800	.26900	.26300	.27900	1.61970	1.71440	.18200
.119	5.200	20.43970	.26800	.26400	.26900	.26900	.26400	.27900	1.62080	1.71170	.18300
.117	10.400	20.52400	.26700	.26000	.26900	.26200	.26500	.27500	1.62660	1.68530	.18300
.117	15.600	20.66970	.26800	.25900	.26900	.25900	.26800	.27500	1.62330	1.67840	.18400
.117	16.700	20.74400	.26600	.25900	.26800	.25900	.26800	.27400	1.62280	1.67220	.18400
.118	17.800	20.87300	.26500	.25400	.26800	.25800	.26600	.27400	1.61850	1.66670	.18400
.118	18.900	20.89970	.26900	.25200	.26800	.25900	.26700	.27400	1.61910	1.66340	.18500
GRADIENT	-5.6371	-1.0757	-1.0757	-1.0757	-1.0757	-1.0757	-1.0757	.0000	.00217	.00306	-.00729

PARAMETRIC DATA

BETA = .000 OPP = 154.000  
DE = .000 DA = .000  
W/L = .250 LTP = .000  
WBT = .000 RD = 2.000

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TRANSLATED FROM SOURCE DATA NAAL-701

08-701 098 B16C907J3612467+08

(EDM 476) ( 29 SEP 73 )

### REFERENCE DATA

9007 = 4,4119 80, FT. 9009 = 43,5974 INCHES  
 1007 = 19,2999 INCHES 1009 = .9702 INCHES  
 9007 = 37,9349 INCHES 2009 = 16,2022 INCHES  
 SCALE = .0405

RUN NO. 476 C RUNAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	0	PR115	PR112	PR113	PR114	PR115	PR116	PR117	PR118	PR119
.117	-3.430	25.64100	.99920	1.17510	.98805	1.00130	1.00030	.99890	.99920	1.00000	.99920
.116	.1193	25.54870	.99925	1.17490	.98795	1.00120	.99980	.99820	.99920	.99970	.99920
.117	5.270	25.45530	.99870	1.17430	.98795	1.00070	1.00070	.99740	.99780	1.00010	.99930
.117	10.430	25.32490	.99910	1.17450	.98871	1.00130	1.00140	.99870	.99875	1.00110	.99930
.117	17.631	25.66500	.99920	1.17570	.98893	1.00170	1.00180	.99880	.99920	1.00120	.99930
.117	16.770	25.74450	.99920	1.17570	.98890	1.00170	1.00180	.99970	.99930	1.00120	.99930
.118	17.070	21.67720	.99910	1.17490	.98890	1.00160	1.00150	.99880	.99920	1.00110	.99920
.118	16.970	21.69350	.99910	1.17570	.98890	1.00160	1.00180	.99890	.99920	1.00120	.99920
.118			.99970	1.17476	.98726	.99933	.99934	.99729	.99729	.99729	.99729

**REFERENCE DATA**

0007	=	4,411.90	INCHES	0000	=	43,9974	INCHES
0007	=	19,2998	INCHES	0000	=	.0000	INCHES
0007	=	37,9349	INCHES	0000	=	16,2000	INCHES
SCALE	=	.0005					

Run No	478/0	RVAL =	.12	GRADIENT INTERVAL =	-5.00/	5.00
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[illegible]

### PARAMETRIC DATA

BETA	=	.003	CAP	=	134.000
DE	=	.000	DA	=	.000
VL	=	.293	LIP	=	.000
WRT	=	.000	RD	=	2.000

RM	MC	437/ 0	SWA	12	CRACKING INTERVAL =	-3.00/	5.00
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**REFERENCE DATA**

9007 =	4,4119	NO-E3	9009 =	43,3974	NO-E3
9007 =	19,2999	NO-E3	9009 =	.0000	NO-E3
9007 =	37,9349	NO-E3	9009 =	16,2003	NO-E3
SCALE =		NO-E3			

MOON	ALPHA	$\phi$	WEN	QUM	QUM	WIC	WOC	WFR1	WFR0	WC
.117	-3.40	20.4590	.34920	.35400	.35000	.33200	.34300	2.03730	2.10460	.16300
.116	.100	20.3590	.35000	.35400	.35100	.33400	.34400	2.04460	2.11290	.16200
.117	5.203	20.4820	.34700	.35400	.34900	.33300	.34300	2.03900	2.10310	.16300
.117	10.403	20.4770	.34200	.35400	.34500	.33400	.34300	2.04590	2.09930	.16300
.117	15.623	20.7120	.34700	.35600	.34700	.33500	.34200	2.04000	2.08220	.16400
.117	16.773	20.6720	.33900	.35800	.34400	.33500	.34100	2.04150	2.07990	.16400
.116	17.800	20.6500	.33700	.35900	.34200	.33400	.34000	2.03140	2.06660	.16400
.116	18.900	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	20.000	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	21.100	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	22.200	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	23.300	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	24.400	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	25.500	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	26.600	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	27.700	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	28.800	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	29.900	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	31.000	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	32.100	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	33.200	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	34.300	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	35.400	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	36.500	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	37.600	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	38.700	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	39.800	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	40.900	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	42.000	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	43.100	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	44.200	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	45.300	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.116	46.400	20.6000	.33700	.35500	.34300	.33500	.33900	2.03200	2.05860	.16400
.1										

### PIEZOMETRIC DATA

BETA	=	.0000	OP	=	154.0000
DE	=	.0000	DA	=	.0000
XL	=	.2500	LIF	=	.0000
NPT	=	.0000	RD	=	2.0000

Case No.	Age	Sex	Reaction Interval	Time	Time
1	12	Male	12	12	12
2	12	Male	12	12	12
3	12	Male	12	12	12
4	12	Male	12	12	12
5	12	Male	12	12	12
6	12	Male	12	12	12
7	12	Male	12	12	12
8	12	Male	12	12	12
9	12	Male	12	12	12
10	12	Male	12	12	12
11	12	Male	12	12	12
12	12	Male	12	12	12
13	12	Male	12	12	12
14	12	Male	12	12	12
15	12	Male	12	12	12
16	12	Male	12	12	12
17	12	Male	12	12	12
18	12	Male	12	12	12
19	12	Male	12	12	12
20	12	Male	12	12	12
21	12	Male	12	12	12
22	12	Male	12	12	12
23	12	Male	12	12	12
24	12	Male	12	12	12
25	12	Male	12	12	12
26	12	Male	12	12	12
27	12	Male	12	12	12
28	12	Male	12	12	12
29	12	Male	12	12	12
30	12	Male	12	12	12
31	12	Male	12	12	12
32	12	Male	12	12	12
33	12	Male	12	12	12
34	12	Male	12	12	12
35	12	Male	12	12	12
36	12	Male	12	12	12
37	12	Male	12	12	12
38	12	Male	12	12	12
39	12	Male	12	12	12
40	12	Male	12	12	12
41	12	Male	12	12	12
42	12	Male	12	12	12
43	12	Male	12	12	12
44	12	Male	12	12	12
45	12	Male	12	12	12
46	12	Male	12	12	12
47	12	Male	12	12	12
48	12	Male	12	12	12
49	12	Male	12	12	12
50	12	Male	12	12	12
51	12	Male	12	12	12
52	12	Male	12	12	12
53	12	Male	12	12	12
54	12	Male	12	12	12
55	12	Male	12	12	12
56	12	Male	12	12	12
57	12	Male	12	12	12
58	12	Male	12	12	12
59	12	Male	12	12	12
60	12	Male	12	12	12
61	12	Male	12	12	12
62	12	Male	12	12	12
63	12	Male	12	12	12
64	12	Male	12	12	12
65	12	Male	12	12	12
66	12	Male	12	12	12
67	12	Male	12	12	12
68	12	Male	12	12	12
69	12	Male	12	12	12
70	12	Male	12	12	12
71	12	Male	12	12	12
72	12	Male	12	12	12
73	12	Male	12	12	12
74	12	Male	12	12	12
75	12	Male	12	12	

## REFERENCE DATA

NOY	=	4,4119	NOES	NOY	=	43,9974	NOES
NOY	=	19,2999	NOES	NOY	=	.0000	NOES
NOY	=	37,9249	NOES	NOY	=	16,2000	NOES
SCALE	=	.0675					

ALPHA	CPS1	CPS0	CPS11	CPS12	CPS04	CPS02	WIN	MON	PART1	PART0
.107	-6.01770	-6.48110	-6.53470	-6.68970	-6.82970	-6.1407	.33720	.34120	1.02820	1.04620
.117	-6.17770	-6.53870	-6.62370	-6.77870	-6.90370	-6.17270	.33000	.34120	.99980	1.04670
.116	-6.17770	-6.49370	-6.56870	-6.73370	-6.75370	-6.25970	.33000	.34120	.99970	1.02570
.117	-6.54970	-6.84470	-6.54770	-6.74570	-6.77770	-6.28970	.33120	.34120	1.00220	1.07240
.117	-6.66270	-6.95870	-6.52670	-6.64870	-6.73570	-6.36170	.34270	.34270	1.00920	.99670
.117	-6.61970	-7.35870	-6.51170	-6.65970	-7.52170	-7.46570	.34270	.34120	1.00200	.99530
.117	-6.61970	-7.49370	-6.51170	-6.65970	-7.52170	-7.51970	.34270	.34120	1.00310	.99380
.110	-6.55770	-7.54270	-6.46670	-6.63470	-7.53970	-7.51970	.34270	.34120	1.00320	.99210
.110	-6.54670	-7.67970	-6.46370	-6.62970	-7.73570	-7.61270	.34270	.34270	1.00320	.99210

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
DE	=	.000	DA	=	.000
xL	=	.250	LIP	=	.000
NBT	=	.000	RD	=	2.000

12 GRADIENT INTERVAL = -5.00/ 5.00

## REFERENCE DATA

SRFP =	4.4119 99.FT.	YARP =	43.5974 INCHES
URFP =	19.2999 INCHES	YARP =	.0000 INCHES
BRFP =	37.9349 INCHES	ZARP =	16.2000 INCHES
SCALE =	.0405		

RUN NO. 4771 G

ALPHA	q	PR11	PR12	PR13	PR14	PR15	PR16
.117	-3.407	20.4550	.99930	1.00520	.98890	1.00140	1.00020
.116	-1.000	20.3550	.99930	1.00520	.98890	1.00020	.99990
.117	5.200	20.4820	.99990	1.00450	.98870	1.00060	.99740
.117	10.400	20.4710	.99910	1.00490	.98870	1.00150	.99780
.117	15.600	20.7120	.99920	1.00500	.98900	1.00170	1.00160
.117	16.700	20.6720	.99920	1.00510	.98900	1.00170	1.00160
.118	17.800	20.6500	.99910	1.00490	.98880	1.00160	.99880
.118	18.900	20.8710	.99920	1.00500	.98890	1.00170	1.00160
.117	-3.407	20.4550	.99930	1.00520	.98890	1.00140	1.00020
.116	-1.000	20.3550	.99930	1.00520	.98890	1.00020	.99990
.117	5.200	20.4820	.99990	1.00450	.98870	1.00060	.99740
.117	10.400	20.4710	.99910	1.00490	.98870	1.00150	.99780
.117	15.600	20.7120	.99920	1.00500	.98900	1.00170	1.00160
.117	16.700	20.6720	.99920	1.00510	.98900	1.00170	1.00160
.118	17.800	20.6500	.99910	1.00490	.98880	1.00160	.99880
.118	18.900	20.8710	.99920	1.00500	.98890	1.00170	1.00160

(FCN477) ( 29 SEP 73 )

### PARAMETRIC DATA

BETA	=	.000	GPP	=	154,000
DE	=	.000	DA	=	.000
XL	=	.250	LIP	=	.000
RD	=	.000	RD	=	2,000

12 GRADIENT INTERVAL = -5.00/ 5.00

### REFERENCE DATA

BRF =	4.4119 SQ. FT.	XRRP =	43.5974 INCHES
URF =	19.2999 INCHES	YRRP =	0.0000 INCHES
ZRRP =	37.9349 INCHES	ZRRP =	16.2000 INCHES
SCALE =	1/400		

RUN NO. 4771

[illegible]







TABULATED PROPLSION SOURCE DATA NAAL-701

DATE 05 DEC 75

NR-701 ORB B16C507J3C12W87+GP

(CDN479) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = 4.000  
 NBT = .000 RO = 2.000

RUN NO. 479/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	Q	WM	WOM	QWM	WTC	WOC	WRI	WRO	WC
.117	-3.300	20.46400	.18700	.18700	.18700	.19100	.18800	1.33920	1.31750	.14200
.116	.000	20.23800	.18700	.18700	.18700	.19000	.18800	1.34070	1.32770	.14100
.116	5.300	20.33000	.18600	.18700	.18600	.19000	.18700	1.33970	1.31930	.14200
.117	10.500	20.45500	.18600	.18500	.18600	.19100	.18900	1.34260	1.33030	.14200
.118	15.800	20.86800	.18700	.18500	.18500	.19200	.19400	1.33360	1.34820	.14400
.118	16.800	20.86700	.18900	.18500	.17300	.19400	.16800	1.34830	1.16610	.14400
.118	17.800	20.84200	.18900	.18500	.17100	.19400	.16800	1.34930	1.15540	.14400
.118	18.900	20.86100	.19000	.18500	.17200	.19300	.16500	1.34390	1.15050	.14400
GRADIENT	-0.07455		.00000	.00000	.00000	-0.00230	.00000	.00045	.00309	-0.00030

NR-701 ORB B16C507J3C12W87+GP

(CDN479) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. YMRP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YMRP = .0000 INCHES  
 BREF = 37.9349 INCHES ZMRP = 16.2000 INCHES  
 SCALE = .0405

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = 4.000  
 NBT = .000 RO = 2.000

RUN NO. 479/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CPSI	CPSG	CPSI1	CPSI2	CPSO1	CPSO2	MIN	MON	PRTI	PRTO
.117	-3.300	-1.40400	-1.28400	-1.38800	-1.42000	-1.34300	-1.22500	.17900	.17600	.99920	.99960
.116	.000	-1.46000	-1.30700	-1.44200	-1.47800	-1.38100	-1.23400	.17800	.17600	.99870	.99970
.116	5.300	-1.45800	-1.28500	-1.42900	-1.47400	-1.40000	-1.17100	.17900	.17600	.99880	.99960
.117	10.500	-1.40300	-1.32300	-1.38400	-1.42200	-1.42200	-1.22500	.18000	.17800	.99930	.99960
.118	15.800	-1.37400	-1.41800	-1.35500	-1.39400	-1.51600	-1.32000	.18000	.18200	.99930	.99930
.118	16.800	-1.42200	-2.70300	-1.40400	-1.44000	-2.94900	-2.45800	.18200	.18000	.99930	.98120
.118	17.800	-1.42000	-2.87800	-1.40200	-1.43700	-3.14400	-2.61300	.18200	.15800	.99940	.97930
.113	18.900	-1.43100	-3.03800	-1.41200	-1.44900	-3.32400	-2.75200	.18200	.15800	.99910	.97760
GRADIENT	-0.01697		-0.00697	-0.01636	-0.01758	-0.01152	-0.00273	-0.00000	.00000	-0.00015	.00000

MACH	ALPHA	Q	RUN NO.	479/0	RVL =	.12	GRADIENT INTERVAL =	-5.00/	5.00	PRT06	PRT07	PRT08	PRT09
.117	-3.300	20.48400	.99980	.99980	.99980	.99980	.99980	.99970	.99980	.99960	.99980	.99980	.99980
.116	.000	20.22800	.99970	.99970	.99970	.99970	.99970	.99980	.99980	.99970	.99980	.99980	.99980
.116	5.300	20.33000	.99980	.99980	.99980	.99980	.99980	.99970	.99970	.99960	.99970	.99970	.99970
.117	10.500	20.45900	.99980	.99980	.99980	.99980	.99980	.99970	.99970	.99960	.99970	.99970	.99970
.116	15.800	20.66800	.99930	.99930	.99930	.99930	.99930	.99940	.99940	.99930	.99940	.99940	.99940
.116	16.800	20.86700	.96470	.96960	.96470	.96470	.96940	.99950	.99950	.99890	.97520	.96840	.96840
.116	17.800	20.84200	.96140	.96640	.96140	.96140	.99860	.99940	.99940	.99850	.97190	.96550	.96550
.116	18.900	20.86100	.95860	.96250	.95860	.95860	.99940	.99940	.99940	.99820	.96920	.96240	.96240
.116			.95860	.96250	.95860	.95860	.99940	.99940	.99940	.99820	.96920	.96240	.96240

(CPM480) (29 SEP 73)

MB-771 088 B16C507J36124874CP

### PARAMETRIC DATA

BETA	=	.000	CAP	=	154.000
DE	=	.000	DA	=	.000
X/L	=	.250	L/P	=	4.000
NET	=	.000	RD	=	2.000

SECT =	4,4119	NO-E3	YARP =	43,9474	NO-E3
URST =	19,2999	NO-E3	YARP =	.0000	NO-E3
SECT =	37,9349	NO-E3	ZARP =	16,2000	NO-E3
SCALE =	.5405				

Model	SS	df	MS	F	p	eta <sup>2</sup>	CI
Intercept	100.00	1	100.00	100.00	.000	.00	
Age	1.00	1	1.00	1.00	.321	.00	
Gender	1.00	1	1.00	1.00	.321	.00	
SES	1.00	1	1.00	1.00	.321	.00	
Age <sup>2</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>3</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>4</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>5</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>6</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>7</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>8</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>9</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>10</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>11</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>12</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>13</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>14</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>15</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>16</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>17</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>18</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>19</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>20</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>21</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>22</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>23</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>24</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>25</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>26</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>27</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>28</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>29</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>30</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>31</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>32</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>33</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>34</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>35</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>36</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>37</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>38</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>39</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>40</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>41</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>42</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>43</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>44</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>45</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>46</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>47</sup>	1.00	1	1.00	1.00	.321	.00	
Age <sup>48</sup>	1.00	1	1.00				

MAO	ALPHA	Q	WM	WOM	QWM	QWOM	WIC	WOC	MPRI	MPRO	WC
.117	-3.300	20.51800	.27100	.27100	.27200	.27100	.26600	.26300	1.06830	1.84550	1.4200
.116	.000	20.32700	.26900	.26900	.26900	.26900	.26500	.26300	1.07050	1.85170	1.4200
.116	5.300	20.29150	.26800	.26800	.26900	.26800	.26600	.26300	1.07550	1.85530	1.4200
.117	10.400	20.53150	.27100	.26900	.27200	.27000	.26700	.26400	1.07550	1.84790	1.4200
.118	15.700	20.79350	.27700	.26700	.27000	.26800	.26700	.26400	1.05970	1.83950	1.4300
.118	16.800	20.79650	.27700	.26700	.27000	.26700	.26600	.26400	1.05800	1.83920	1.4300
.118	17.800	20.97200	.27500	.26700	.27100	.26700	.26800	.26500	1.05690	1.84250	1.4400
.118	18.900	20.97500	.26900	.26500	.26900	.26600	.26700	.26500	1.05320	1.84120	1.4400
									1.0567	1.84198	1.4400

### PARAMETRIC DATA

BETA	=	.000	GP	=	154.000
DE	=	.000	DA	=	.000
WL	=	.250	LIP	=	4.000
BY	=	.000	PC	=	2.000

BRF =	4,419	90, FT.	YAPP =	43,9974	INOES
URF =	19,2999	INOES	YAPP =	.0000	INOES
BRF =	37,9349	INOES	ZAPP =	16,2000	INOES
SCALE =		5405			

Variable	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis	Normality Test
Age	35.2	12.5	20	65	0.15	3.2	0.98
Gender	1.2	0.4	1	2	0.05	2.8	0.95
Education	15.8	2.1	10	20	0.10	3.0	0.97
Income	45000	15000	20000	80000	0.20	3.5	0.96
Health	2.5	0.8	1	4	0.08	2.9	0.99
Stress	3.2	1.1	1	5	0.12	3.1	0.97
Workload	4.1	1.3	2	6	0.18	3.4	0.96
Job Satisfaction	3.8	1.0	2	5	0.14	3.3	0.98
Life Satisfaction	3.5	0.9	2	5	0.11	3.2	0.97
Overall Well-being	3.3	0.8	2	5	0.10	3.1	0.99

MAOH	ALPHA	CP51	CP50	CP511	CP512	CP504	CP502	WIN	MON	PATTI	PARTO
.117	-3.300	-3.78100	-2.55500	-3.73400	-3.82700	-3.57400	-3.43700	.25900	.25200	.99800	.99960
.116	.000	-3.81900	-2.57700	-3.76700	-3.87100	-3.71200	-3.44100	.25900	.25100	.99850	.99970
.116	5.300	-3.83600	-3.55400	-3.78200	-3.89300	-3.75400	-3.43400	.25900	.25200	.99850	.99950
.117	10.400	-3.78100	-3.57700	-3.73200	-3.83100	-3.76500	-3.37600	.25900	.25200	.99800	.99950
.118	15.400	-3.70000	-3.53800	-3.65400	-3.74500	-3.74400	-3.29100	.25900	.25300	.99800	.99940
.118	16.800	-3.69100	-3.54300	-3.64600	-3.73600	-3.81100	-3.29500	.25900	.25400	.99800	.99940
.118	17.800	-3.70500	-3.56100	-3.65900	-3.74700	-3.84400	-3.29800	.25900	.25400	.99800	.99940
.116	18.900	-3.67600	-3.56200	-3.62800	-3.72500	-3.86600	-3.27300	.25900	.25400	.99800	.99940
CP51500		-3.65100	-3.56700	-3.61300	-3.71100	-3.88800	-3.25100	.25900	.25400	.99800	.99940

NR-7J1 ORB B16C507J3G124874CP

(EDN48C) ( 29 SEP 73 )

## REFERENCE DATA

SRP = 4,4119 90,FT. YRP = 43,9974 INCHES  
LRF = 19,2999 INCHES YRP = ,0000 INCHES  
BRF = 37,9349 INCHES ZRP = 16,2000 INCHES  
SCALE = ,5405

RUN NO. 400/5 RVAL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	$\theta$	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19
.117	-3.300	20.51800	.99950	.99950	.99930	.99900	.99790	.99900	.99930	.99920	.99720
.116	.700	20.32700	.99960	.99940	.99860	.99800	.99750	.99840	.99850	.99910	.99730
.116	5.300	20.29100	.99920	.99890	.99840	.99840	.99860	.99730	.99790	.99950	.99750
.117	10.400	20.53100	.99940	.99930	.99920	.99920	.99920	.99800	.99870	.99950	.99770
.118	15.700	20.79300	.99940	.99940	.99940	.99940	.99930	.99880	.99930	.99940	.99740
.118	16.800	20.79500	.99940	.99940	.99940	.99930	.99930	.99890	.99920	.99940	.99710
.118	17.800	20.90200	.99940	.99940	.99940	.99940	.99930	.99890	.99930	.99930	.99720
.118	18.900	20.97400	.99940	.99930	.99930	.99930	.99930	.99890	.99920	.99930	.99730
CRACIT		-0.5748	.00000	-0.0003	-0.0002	-0.0003	-0.0002	-0.0010	-0.0024	-0.0003	.00000

## REFERENCE DATA

BRF = 4.4119 SQ.FT. XRR = 43.5974 INCHES  
LRF = 19.2999 INCHES YRR = .0000 INCHES  
BRF = 37.9349 INCHES ZRR = 16.2700 INCHES  
SCALE = .0405

RUN NO. 480/0 RMVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	PRTO1	PRTO2	PRTO3	PRTO4	PR TO5	PR TO7	PR TO8	PR TO9
.117	-3.300	20.51870	.99950	.99950	.99950	.99960	.99950	.99960	.99960	.99960
.116	.000	20.32700	.99960	.99960	.99960	.99960	.99970	.99960	.99970	.99970
.116	5.300	20.29100	.99960	.99950	.99960	.99970	.99960	.99970	.99970	.99970
.117	15.400	20.53100	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.118	15.700	20.79300	.99940	.99940	.99940	.99950	.99950	.99950	.99950	.99950
.118	16.800	20.79600	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940
.118	17.800	20.90200	.99940	.99940	.99940	.99940	.99940	.99940	.99940	.99940
.118	18.900	20.97500	.99930	.99930	.99930	.99940	.99940	.99940	.99940	.99940
CORRECTION		-0.5788	.00003	.00003	.00003	.00000	.00000	.00000	.00003	.00003



NR-701 ORS B16C507J3C12A874CP

(EDM481) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 90.FT. ARRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZARP = 16.2070 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CWP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 481/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.117	-3.300	20.90200	.99950	.99950	.99940	.99910	.99790	.99920	.99940	.99920	.99790
.116	.000	20.29000	.99970	.99950	.99870	.99810	.99750	.99860	.99870	.99920	.99870
.117	5.200	20.43400	.99930	.99970	.99840	.99830	.99850	.99740	.99780	.99940	.99820
.117	10.500	20.56800	.99940	.99930	.99910	.99910	.99920	.99770	.99850	.99950	.99830
.117	15.700	20.63800	.99950	.99930	.99950	.99950	.99940	.99860	.99930	.99950	.99850
.114	16.700	20.82400	.99940	.99940	.99940	.99930	.99930	.99870	.99930	.99940	.99850
.116	17.600	20.73500	.99950	.99950	.99950	.99940	.99940	.99890	.99940	.99950	.99860
.116	18.900	20.93800	.99930	.99930	.99930	.99930	.99930	.99870	.99920	.99930	.99850
GRADIENT	-0.6424		.00006	.00006	-.00021	-.00030	-.00012	-.00012	-.00021	-.00003	.00003

NR-701 ORS B16C507J3C12A874CP

(EDM481) ( 29 SEP 73 )

## REFERENCE DATA

BRDF = 4.4119 90.FT. ARRP = 43.5974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 BRDF = 37.9349 INCHES ZARP = 16.2070 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 CWP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = 4.000  
 NBT = .000 RD = 2.000

RUN NO. 481/ 0 RN/L = .12 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.117	-3.300	20.90200	.99950	.99950	.99950	.99980	.99950	.99960	.99950	.99960	.99980
.116	.000	20.29000	.99970	.99970	.99970	.99970	.99970	.99980	.99970	.99980	.99980
.117	5.200	20.43400	.99960	.99960	.99980	.99980	.99960	.99970	.99960	.99970	.99970
.117	10.500	20.56800	.99950	.99950	.99950	.99950	.99950	.99960	.99950	.99960	.99960
.117	15.700	20.63800	.99950	.99950	.99950	.99950	.99950	.99940	.99950	.99960	.99960
.116	16.700	20.82400	.99950	.99950	.99950	.99940	.99940	.99950	.99940	.99940	.99940
.116	17.600	20.73500	.99950	.99950	.99950	.99950	.99950	.97760	.99950	.99960	.99960
.116	18.900	20.93800	.99930	.99930	.99930	.99930	.99930	.99940	.99930	.99940	.99940
GRADIENT	-0.6424		.00006	.00006	.00006	.00003	.00006	.00006	.00006	.00006	.00006

DATE 05 DEC 75

TABULATED PROPLSION SOURCE DATA NAAL-701

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(COM482) ( 29 SEP 75 )

NR-701 ORB B16C507J3G12A87+CP

## REFERENCE DATA

BRDF = 4.4119 90.FT. YARP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 ZREF = 37.9349 INCHES ZARP = 16.2070 INCHES  
 SCALE = .0405

RUN NO. 482/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q	WM	WM	WM	QOM	WIC	VOC	MPRI	MPRO	WC
.117	-3.300	20.45900	.42600	.42500	.42700	.42600	.38900	.38000	2.70770	2.67130	.14200
.116	.000	20.26200	.42400	.42300	.42500	.42400	.38900	.38000	2.71920	2.68320	.14100
.117	5.300	20.47200	.42400	.42300	.42500	.42300	.38600	.38000	2.70960	2.67080	.14200
.117	10.400	20.59200	.42400	.42100	.42400	.42300	.38600	.38100	2.70270	2.66540	.14300
.117	15.700	20.61500	.42400	.42100	.42400	.42300	.38600	.38200	2.70180	2.67050	.14300
.116	16.700	20.85300	.42400	.42000	.42500	.42700	.38600	.38200	2.68720	2.65700	.14300
.116	17.600	20.88300	.42300	.41900	.42400	.42700	.38600	.38200	2.68490	2.65800	.14400
.116	18.900	20.91700	.42400	.41900	.42500	.41900	.38600	.38200	2.68130	2.65590	.14400
.116	18.900	20.91700	.42400	.41900	.42500	.41900	.38600	.38200	2.68130	2.65590	.14400
GRADIENT	-0.5939	-0.0061	-0.0061	-0.0061	-0.0061	-0.0061	.00000	.00000	.00348	.00361	-0.00330

## REFERENCE DATA

BRDF = 4.4119 90.FT. YARP = 43.9974 INCHES  
 LREF = 19.2999 INCHES YARP = .0000 INCHES  
 ZREF = 37.9349 INCHES ZARP = 16.2070 INCHES  
 SCALE = .0405

RUN NO. 482/ 0 RNVL = .12 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	Q-SI	CP50	CP51	CP52	CP53	CP54	CP55	WIN	MON	PRTI	PRT0
.117	-3.300	-9.49200	-9.09400	-9.45300	-9.53000	-9.37000	-8.81800	.38900	.38200	.99890	.99890	.99960
.116	.000	-9.50300	-9.17700	-9.53700	-9.64000	-9.47900	-8.87500	.38900	.38200	.99880	.99880	.99970
.117	5.300	-9.51000	-9.18700	-9.45300	-9.56600	-9.41700	-8.75700	.38900	.38300	.99890	.99890	.99970
.117	10.400	-9.45300	-9.06300	-9.38800	-9.47800	-9.42500	-8.77700	.38900	.38300	.99910	.99910	.99950
.117	15.700	-9.39900	-9.10900	-9.36400	-9.43400	-9.50400	-8.70700	.38900	.38400	.99930	.99930	.99950
.116	16.700	-9.29600	-9.01700	-9.26100	-9.33100	-9.41100	-8.61500	.38900	.38400	.99950	.99950	.99940
.116	17.600	-9.28100	-9.03400	-9.24600	-9.31100	-9.44600	-8.62700	.38900	.38500	.99920	.99920	.99940
.116	18.900	-9.25300	-9.01700	-9.21900	-9.28700	-9.43700	-8.59700	.38900	.38500	.99920	.99920	.99940
.116	18.900	-9.25300	-9.01700	-9.21900	-9.28700	-9.43700	-8.59700	.38900	.38500	.99920	.99920	.99940
GRADIENT	-0.5939	-0.02515	-0.02545	-0.03333	-0.03333	-0.03333	-0.03333	.00000	.00000	.00000	.00000	.00000

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .250 LIP = 4.000  
 NBT = .000 RD = 2.000

(COM482) ( 29 SEP 75 )

NR-701 ORB B16C507J3G12A87+CP

(28 SEP 73) (29 SEP 73)

NR-WJ: ORB 816C507j3G12A87+CP

### PARAMETRIC DATA

BETA	=	.000	CAP	=	154.000
OE	=	.000	DA	=	.000
K/L	=	.250	LIP	=	4.000
NBY	=	.000	RD	=	2.000

12 GRADIENT INTERVAL = -5.00/ 5.00

## REFERENCE DATA

XREF = 4.4119 SQ.FT.      XRRP = 43.5974 INCHES  
 XREF = 19.2999 INCHES      YRRP = .0000 INCHES  
 XREF = 37.9349 INCHES      ZRRP = 16.2000 INCHES  
 SCALE = .0405

RUN NO. 482/5

ALPHA	Q	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19
1.117	-5.300	.99960	.99960	.99940	.99970	.99770	.99890	.99940	.99940	.99880
1.116	.000	.99960	.99950	.99870	.99870	.99780	.99860	.99860	.99930	.99930
1.117	5.300	.99940	.99910	.99850	.99840	.99860	.99750	.99790	.99940	.99940
1.118	10.400	.99940	.99930	.99920	.99920	.99920	.99750	.99850	.99950	.99930
1.117	15.700	.99950	.99930	.99950	.99940	.99940	.99840	.99920	.99930	.99930
1.119	16.700	.99940	.99940	.99940	.99940	.99930	.99860	.99930	.99940	.99920
1.118	17.800	.99930	.99940	.99940	.99930	.99930	.99870	.99920	.99940	.99910
1.116	18.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	19.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	20.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	21.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	22.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	23.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	24.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	25.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	26.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	27.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	28.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	29.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	30.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	31.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	32.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	33.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	34.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	35.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	36.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	37.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	38.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	39.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	40.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	41.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	42.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	43.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.119	44.900	.99930	.99940	.99940	.99930	.99930	.99860	.99930	.99940	.99910
1.118	4									

(FDM482) (29 SEP 73)

ME-71, 088 B:6C507J3G12A87+CP

### PARAMETRIC DATA

BETA	=	.0000	GPP	=	154.0000
DE	=	.0000	DA	=	.0000
X/L	=	.2500	1/P	=	4.0000
NBT	=	.0000	RD	=	2.0000

Variable	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis	Shapiro-Wilk	Normality
Variable 1	12.50	5.00	0.00	25.00	0.50	3.00	0.95	0.05
Variable 2	10.00	4.00	0.00	20.00	0.20	2.50	0.98	0.02
Variable 3	15.00	6.00	0.00	30.00	0.80	3.50	0.90	0.10
Variable 4	8.00	3.00	0.00	16.00	0.10	2.00	0.99	0.01
Variable 5	11.00	4.50	0.00	22.00	0.30	2.80	0.96	0.04
Variable 6	9.00	3.50	0.00	18.00	0.15	2.20	0.97	0.03
Variable 7	13.00	5.50	0.00	26.00	0.60	3.20	0.92	0.08
Variable 8	7.00	2.50	0.00	14.00	0.05	1.80	0.99	0.01
Variable 9	14.00	6.50	0.00	28.00	0.70	3.80	0.88	0.12
Variable 10	6.00	2.00	0.00	12.00	0.02	1.50	0.99	0.01
Variable 11	16.00	7.00	0.00	32.00	0.90	4.00	0.85	0.15
Variable 12	5.00	1.50	0.00	10.00	0.01	1.20	0.99	0.01
Variable 13	17.00	7.50	0.00	34.00	1.00	4.20	0.82	0.18
Variable 14	4.00	1.00	0.00	8.00	0.00	1.00	0.99	0.01
Variable 15	18.00	8.00	0.00	36.00	1.10	4.50	0.80	0.20
Variable 16	3.00	0.80	0.00	6.00	0.00	0.80	0.99	0.01
Variable 17	19.00	8.50	0.00	38.00	1.20	4.80	0.78	0.22
Variable 18	2.00	0.50	0.00	4.00	0.00	0.50	0.99	0.01
Variable 19	20.00	9.00	0.00	40.00	1.30	5.00	0.75	0.25
Variable 20	1.00	0.30	0.00	2.00	0.00	0.30	0.99	0.01
Variable 21	21.00	9.50	0.00	42.00	1.40	5.20	0.72	0.28
Variable 22	0.50	0.20	0.00	1.00	0.00	0.20	0.99	0.01
Variable 23	22.00	10.00	0.00	44.00	1.50	5.50	0.70	0.30
Variable 24	0.20	0.10	0.00	0.40	0.00	0.10	0.99	0.01
Variable 25	23.00	10.50	0.00	46.00	1.60	5.80	0.68	0.32
Variable 26	0.10	0.05	0.00	0.20	0.00	0.05	0.99	0.01
Variable 27	24.00	11.00	0.00	48.00	1.70	6.00	0.65	0.35
Variable 28	0.05	0.02	0.00	0.10	0.00	0.02	0.99	0.01
Variable 29	25.00	11.50	0.00	50.00	1.80	6.20	0.62	0.38
Variable 30	0.02	0.01	0.00	0.04	0.00	0.01	0.99	0.01
Variable 31	26.00	12.00	0.00	52.00	1.90	6.50	0.60	0.40
Variable 32	0.01	0.00	0.00	0.02	0.00	0.00	0.99	0.01
Variable 33	27.00	12.50	0.00	54.00	2.00	6.80	0.58	0.42
Variable 34	0.00	0.00	0.00	0.01	0.00	0.00	0.99	0.01
Variable 35	28.00	13.00	0.00	56.00	2.10	7.00	0.55	0.45
Variable 36	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.01
Variable 37	29.00	13.50	0.00	58.00	2.20	7.20	0.52	0.48
Variable 38	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.01
Variable 39	30.00	14.00	0.00	60.00	2.30	7.50	0.50	0.50
Variable 40	0.00	0.00	0.00	0.00	0.00	0.00	0.99	0.01
Variable 41	31.00	14.50	0.00	62.00	2.40	7.80		

**REFERENCE DATA**

WARP =	4.4119	50.FT.	WARP =	43.5974	INCHES
LEAF =	19.2999	INCHES	WARP =	.0000	INCHES
WARP =	37.9349	INCHES	WARP =	16.2023	INCHES
SCALE =	.0405				

**RUN NO. 482/0**

WAGON	ALPHA	Q	PR TO1	PR TO2	PR TO3	PR TO4	PR TO5	PR TO6	PR TO7	PR TO8	PR TO9
.117	-3.300	20.45800	.99960	.99960	.99960	.99960	.99960	.99970	.99960	.99970	.99970
.116	.000	20.26200	.99967	.99970	.99970	.99970	.99960	.99980	.99970	.99970	.99970
.116	5.000	20.47200	.99960	.99960	.99960	.99960	.99960	.99970	.99970	.99970	.99970
.117	10.400	20.58200	.99930	.99930	.99930	.99930	.99930	.99930	.99930	.99960	.99960
.117	15.700	20.61500	.99930	.99930	.99930	.99930	.99930	.99960	.99930	.99960	.99960
.116	16.700	20.65300	.99940	.99940	.99940	.99940	.99940	.99930	.99940	.99930	.99930
.116	17.600	20.68300	.99930	.99930	.99930	.99940	.99930	.99940	.99930	.99940	.99940
.116	18.900	20.91700	.99930	.99940	.99940	.99940	.99940	.99930	.99940	.99940	.99940
.116	18.900	20.91700	.99930	.99940	.99940	.99940	.99940	.99930	.99940	.99940	.99940





NR-7J1 CR8 016C507J3G12A874C8

(ED-483) (29 SEP 73)

## REFERENCE DATA

BRDF = 4.4119 SQ.FT. 100RP = 43.5974 INCHES  
 URF = 19.2990 INCHES 100RP = .0000 INCHES  
 BRDF = 37.9349 INCHES 200RP = 16.2070 INCHES  
 SCALE = .0405

BETA	=	.000	GAP	=	154,000
DE	=	.000	DA	=	.000
X/L	=	.250	LIP	=	4,000
NBT	=	.000	RD	=	2,000

RUN NO. 483/0 RVL = .17 GRADIENT INTERVAL = .5.00/ 5.00

MAOM	ALPHA	$\alpha$	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19
.165	-1.50	40.70500	.99980	.99950	.99920	.99880	.99780	.99900	.99920	.99900	.99870
.164	.100	40.31300	.99930	.99880	.99750	.99670	.99590	.99740	.99740	.99810	.99840
.165	5.300	40.79000	.99780	.99750	.99700	.99690	.99720	.99500	.99610	.99860	.99890
.165	10.500	40.94400	.99930	.99930	.99930	.99890	.99890	.99720	.99820	.99940	.99920
.166	15.800	41.46200	.99920	.99910	.99910	.99910	.99970	.99870	.99920	.99920	.99890
.166	16.800	41.36800	.99930	.99930	.99930	.99920	.99920	.99880	.99920	.99930	.99920
.166	17.900	41.86000	.99910	.99910	.99910	.99920	.99970	.99880	.99940	.99910	.99870
.166	19.000	41.56800	.99920	.99920	.99920	.99920	.99910	.99890	.99910	.99920	.99890
CRADIC	-1.089		.99978	.99919	-.99947	-.99958	-.99953	-.99944	-.99950	-.99925	-.99918

REFERENCE DATA

SRF = 4.4119 SQ.FT. WRP = 43.5974 INCHES  
LRF = 19.2999 INCHES WRP = .0000 INCHES  
GRF = 37.9349 INCHES ZRP = 16.2000 INCHES  
SCALE = .14035

BETA	=	.0000	GPP	=	154.0000
DE	=	.0000	DA	=	.0000
X/L	=	.250	LIP	=	6.0000
NGT	=	.0000	PC	=	2.0000

RUN NO. 463/0 RNL = .17 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

NR-701 ORB 816C907J3612487\*CP

(CDM484) ( 29 SEP 73 )

## REFERENCE DATA

BRD = 4.4119 50.FT. WARP = 43.5974 INCHES  
 LRD = 19.2999 INCHES WARP = .0000 INCHES  
 BRD = 37.9349 INCHES ZARP = 16.2070 INCHES  
 SCALE = .0405

RUN NO. 484/ 0 RWL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	Q	WM	WM	QWM	QWM	WIC	WIC	WRI	WRI	WC
.164	-3.9/0	40.51470	.27900	.287/0	.27800	.27800	.27800	.27300	1.36130	1.36770	.19970
.164	.1/0	40.53500	.28070	.282/0	.27970	.28100	.27900	.27400	1.37810	1.37070	.20770
.164	5.3/0	40.65820	.27970	.277/0	.27400	.27800	.27600	.27300	1.37870	1.36670	.20770
.165	15.9/0	41.94270	.27970	.274/0	.27800	.27700	.27700	.27400	1.38290	1.36520	.20770
.164	15.8/0	41.43770	.28270	.274/0	.28070	.27800	.27900	.27700	1.38480	1.37350	.21200
.164	16.4/0	41.52270	.27970	.275/0	.27800	.27300	.27700	.27700	1.36930	1.37190	.21200
.164	17.970	41.57470	.28070	.24970	.27970	.25870	.28070	.25570	1.38390	1.36190	.21200
.164	18.9/0	41.57570	.28070	.25270	.27970	.26370	.28170	.25470	1.38970	1.35680	.21200
GRADIENT			.1728	.17456	.17728	.17683	-.17728	.17728	-.17761	.17763	.17724

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 W/T = .000 R/D = 3.000

## REFERENCE DATA

BRD = 4.4119 50.FT. WARP = 43.5974 INCHES  
 LRD = 19.2999 INCHES WARP = .0000 INCHES  
 BRD = 37.9349 INCHES ZARP = 16.2070 INCHES  
 SCALE = .0405

NR-701 ORB 816C907J3612487\*CP

(CDM484) ( 29 SEP 73 )

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 W/T = .000 R/D = 3.000

RUN NO. 484/ 0 RWL = .17 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	QF31	QF50	QF511	QF512	QF501	QF570	MIN	MON	PCT1	WR70
.164	-3.9/0	-1.57670	-1.471/0	-1.56570	-1.56770	-1.57870	-1.47470	.26470	.26770	.93090	.93980
.164	.1/0	-1.62070	-1.49770	-1.62170	-1.62670	-1.57270	-1.41370	.26370	.26170	.99760	.99980
.164	5.3/0	-1.62970	-1.47670	-1.62870	-1.64370	-1.57270	-1.38370	.26400	.26100	.99780	.99980
.165	15.9/0	-1.57570	-1.47970	-1.57970	-1.59470	-1.47470	1.35570	.26570	.26100	.99480	.99350
.165	15.8/0	-1.52870	-1.52670	-1.55570	-1.56770	-1.46770	1.35770	.26570	.26570	.99770	.99920
.164	16.4/0	-1.52270	-1.52970	-1.51470	-1.51470	-1.35570	1.35570	.26470	.26570	.99770	.99920
.164	17.970	-1.53770	-2.07340	-1.57070	-1.57070	-1.35770	1.35770	.26470	.26100	.99990	.99990
.164	18.9/0	-1.67170	-2.16870	-1.56470	-1.61470	-1.35770	1.35770	.26470	.26100	.99770	.99440
GRADIENT		-.17772	-.17761	-.17756	-.17757	-.17757	-.17757	.17757	.17728	-.17736	-.17735

NR-701 ORB B16C507J3G12W87+GP

(EDN424) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2010 INCHES  
SCALE = .0405

## PARAMETRIC DATA

BETA	=	.000	GPP	=	154.000
DE	=	.000	DA	=	.000
X/L	=	.000	LIP	=	4.000
NBT	=	.000	RD	=	3.000

RUN NO. 484/0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	RTT1	RTT2	RTT3	RTT4	RTT5	RTT6	RTT7	RTT8	RTT9
.164	-3.570	40.51400	.99980	.99970	.99930	.99890	.99740	.99900	.99930	.99910	.99880
.164	.170	40.53500	.99920	.99980	.99720	.99630	.99540	.99710	.99710	.99830	.99930
.164	5.300	40.55200	.99820	.99770	.9740	.99700	.99740	.99540	.99610	.99890	.99970
.165	10.500	40.56200	.99910	.99930	.99890	.99890	.99890	.99690	.99870	.99940	.99910
.166	15.870	41.43700	.99910	.99910	.99910	.99910	.99890	.99830	.99890	.99910	.99880
.166	16.800	41.52200	.99920	.99920	.99910	.99910	.99910	.99850	.99970	.99920	.99880
.166	17.900	41.67600	.99920	.99920	.99920	.99910	.99910	.99870	.99940	.99920	.99880
.166	18.900	41.57500	.99920	.99910	.99920	.99910	.99910	.99870	.99940	.99910	.99880
GRADIENT		.01583	-.00017	-.00025	-.00058	-.00072	-.00056	-.00053	-.00061	-.00031	-.00014

NR-701 OFB B16C507J3G12W87+GP

(FDN484) ( 29 SEP 73 )

## REFERENCE DATA

SREF = 4.4119 SQ.FT. XMRP = 43.5974 INCHES  
LREF = 19.2999 INCHES YMRP = .0000 INCHES  
BREF = 37.9349 INCHES ZMRP = 16.2100 INCHES  
SCALE = .0405

### PARAMETRIC DATA

BETA	=	.0000	GPP	=	154.0000
DE	=	.0000	DA	=	.0000
LA	=	.0000	LIP	=	4.0000
NRI	=	.0000	RD	=	3.0000

RUN NO. 484/ 01 RVL = .17 GRADIENT INTERVAL = -5.00/ 5.00

[illegible]



DATE 05 DEC 73

TABULATED PROPULSION SOURCE DATA NAAL-701

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NR-701 ORB B16C507J3G12-487+GP

(CON485) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 485/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q	WM	WSM	QVM	QVM	WTC	WOC	MFR	MFR	WC
.164	-3.500	40.50300	.36200	.36200	.36100	.36100	.34300	.34000	1.71900	1.70330	.19900
.164	.000	40.50900	.36100	.36300	.36000	.36200	.34200	.34000	1.71580	1.70580	.19900
.165	5.300	40.76300	.36000	.36200	.36000	.36000	.34300	.34000	1.71410	1.69910	.20000
.165	10.500	40.99200	.36200	.36100	.36100	.35900	.34400	.34100	1.71480	1.69920	.20000
.166	15.800	41.47300	.36200	.35900	.36100	.35800	.34400	.24300	1.70910	1.70180	.20200
.166	16.800	41.52800	.36400	.36000	.36000	.35800	.34500	.34500	1.70910	1.70780	.20200
.166	17.900	41.63500	.36100	.35700	.36000	.35600	.34400	.34500	1.70760	1.70580	.20200
.166	19.000	41.57600	.36400	.35200	.36300	.34500	.34600	.31100	1.71110	1.54090	.20200
GRADIENT	.00171	-0.00029	.00029	.00029	.00000	.00029	-0.00029	.00200	-0.00091	.00071	.00000

NR-701 ORB B16C507J3G12-487+GP

(CON485) ( 29 SEP 73 )

REFERENCE DATA

SREF = 4.4119 SQ.FT. XARP = 43.5974 INCHES  
LREF = 19.2999 INCHES YARP = .0000 INCHES  
BREF = 37.9349 INCHES ZARP = 16.2000 INCHES  
SCALE = .0403

PARAMETRIC DATA

BETA = .000 GPP = 154.000  
DE = .000 DA = .000  
X/L = .000 LIP = 4.000  
NBT = .000 RD = 3.000

RUN NO. 485/ 0 RN/L = .17 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CPS1	CPSO	CPS11	CPS12	CPSO1	CPSO2	MIN	MCN	PRT1	PRT0
.164	-3.500	-3.09400	-2.95300	-3.07700	-3.11000	-3.06200	-2.84000	.33700	.33300	.99870	.99980
.164	.000	-3.14000	-2.97400	-3.11700	-3.16400	-3.09600	-2.85200	.33800	.33300	.99770	.99960
.165	5.300	-3.12000	-2.94200	-3.09400	-3.14800	-3.08000	-2.80400	.33700	.33300	.99790	.99960
.165	10.500	-3.07200	-2.94800	-3.05300	-3.09000	-3.07600	-2.78900	.33800	.33400	.99880	.99960
.166	15.800	-3.02200	-2.98400	-3.00700	-3.03600	-3.17400	-2.79400	.33800	.33700	.99900	.99920
.166	16.800	-3.03300	-3.01400	-3.01700	-3.04900	-3.21500	-2.81300	.33900	.33900	.99900	.99920
.166	17.900	-2.99700	-3.01200	-2.98100	-3.01300	-3.22300	-2.80200	.33800	.33900	.99890	.99910
.166	19.000	-3.04400	-4.92500	-3.02600	-3.05900	-4.89600	-4.15400	.34000	.31600	.99900	.95790
GRADIENT	-.01314	-.00160	-.00160	-.01143	-.01543	-.00971	-.00200	-.00029	.00000	-.00029	-.00006



DATE 59 DEC 73

000 12-30 01657302000

(CDN486) (29 SEP 73)

### PARAMETRIC DATA

BETA	=	,000	QPB	=	154,000
DE	=	,000	DA	=	,000
LL	=	,000	LIP	=	4,000
BY	=	,000	BD	=	3,000

	INTERCEPT	COEFFICIENT	STANDARD ERROR	T-STAT	PROB> T	CI LOWER	CI UPPER
CONSTANT	1.0000	0.0000	0.0000				
DE	0.0000	0.0000	0.0000				
1/L	0.0000	0.0000	0.0000				
1/RT	0.0000	0.0000	0.0000				
BETA	0.0000	0.0000	0.0000				

[illegible]

**REFERENCE DATA**

DEPTH =	4,419	90 FT.	WAPP =	43,9974	INCHES
LEAF =	19,2999	INCHES	WAPP =	.0000	INCHES
SEED =	37,9349	INCHES	WAPP =	16,2000	INCHES
SCALE =		INCHES			

MAOCH	ALPHA	Q	PUN NO.	486V	5	47W	47W	486V	5
1:53	-3.970	40.71903				43700	42900		
1:54	1.00	40.56896				43000	43100		
1:55	5.370	40.76890				42900	42900		
1:56	10.500	40.51893				42800	42900		
1:56	15.870	41.44300				43200	42900		
1:56	16.870	41.32700				43000	42900		
1:56	17.900	41.59200				43100	42900		
1:56	19.000	41.56500				43100	42900		
1:56	20.000	41.56700				43100	42900		

DATE RECEIVED

BETA	=	.000	QPP	=	154,000
DE	=	.000	DA	=	.000
IN	=	.000	LIP	=	4,000
PT	=	.000	PD	=	3,000

U.S. AIR FORCE - TAVELAND DELIVER

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

72-20333-34

9000	=	4,419	90-ES	APP	=	43,9974	100-ES
9001	=	9,2699	100-ES	APP	=	3,000	100-ES
9002	=	37,9269	100-ES	APP	=	16,2000	100-ES
9003	=	10,402					

	ALPHA	BETA	CPRO	CPRO	CPRO
1.55	-3.570	-4.4170	-4.42170	-4.42590	-4.42590
1.64	1.170	-4.4240	-4.42700	-4.42590	-4.42590
1.65	5.170	-4.4150	-4.42320	-4.42170	-4.42170
1.65	10.570	-4.4140	-4.42270	-4.42170	-4.42170
1.66	15.970	-4.43070	-4.42690	-4.43110	-4.43110
1.66	16.870	-4.34570	-4.41970	-4.42690	-4.42690
1.66	17.900	-4.3350	-5.44000	-4.43110	-4.43110
1.66	19.000	-4.34800	-5.64000	-4.43970	-4.43970
GRADIENT		-1.0256	-1.0567	-1.1166	-1.1166







TABLE 1. TESTED PROFILES SIGN SOURCE DATA NAAL-701

DATE 03 DEC 73

(15A487) ( 29 SEP 73 )

NR-771 588 816C507J361248706

### PARAMETRIC DATA

BETA	=	,000	QPP	=	154,000
DE	=	,000	DA	=	,000
XL	=	,000	LIP	=	4,000
BP	=	,000	BO	=	3,000

## REFERENCE DATA

BRDF = 4.4119 80.1FT. XRRP = 43.9974 INCHES  
LREF = 19.2999 INCHES VRRP = .0000 INCHES  
BREF = 37.9349 INCHES ZRRP = 16.2490 INCHES  
SCALE = .0405

BRN NO.	4871	Q	BNVL	=	.20	GRADIENT INTERVAL	=	-5.75/	5.00
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ALPHA	Q	Q113	Q112	Q113	Q114	Q115	Q116	Q117	Q118	Q119
201	-3.600	.99980	.99970	.99990	.99980	.99700	.99970	.99920	.99870	.99930
201	1.00	.99870	.99970	.99870	.99950	.99620	.99870	.99880	.99600	.99750
201	5.500	.99700	.99650	.99850	.99590	.99620	.99870	.99890	.99840	.99880
202	10.600	.99990	.99970	.99990	.99980	.99980	.99980	.99930	.99930	.99930
203	15.900	.99990	.99970	.99990	.99990	.99990	.99970	.99980	.99970	.99970
203	16.500	.99980	.99980	.99990	.99990	.99990	.99970	.99980	.99980	.99980
203	18.000	.99990	.99990	.99990	.99990	.99990	.99980	.99990	.99990	.99990
204	19.100	.99990	.99990	.99990	.99990	.99990	.99980	.99990	.99990	.99990

### PARAMETRIC DATA

BETA	=	0.00	OPP	=	1.54
DE	=	0.00	DA	=	0.00
X/L	=	0.00	LIP	=	4.00
DOZ	=	0.00	DO	=	3.00

EXHIBIT C-1A

SPRF = 4.413 SQ. FT. MAP = 43.5974 MOSES  
LRF = 19.2599 INCHES MAP = .0002 MOSES  
BRF = 37.9349 INCHES MAP = .16.2870 MOSES  
CALF = .0415

[illegible][illegible]

1962, 20-23-73

[illegible]

**DATE: 11/2/2018**

Variable	Mean	Standard Deviation	Minimum	Maximum
AGE	41.57	10.17	20	65
SEX	19.26	4.03	10	28
EDUC	17.54	4.03	10	28
INCOME	15.54	5.03	10	28

[illegible]

1990	2046.0	2046.0	3000.0	0.000	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.0	2046.
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Year	Population	Area	Population	Area	Population	Area
1951	100	100	100	100	100	100
1952	100	100	100	100	100	100
1953	100	100	100	100	100	100
1954	100	100	100	100	100	100
1955	100	100	100	100	100	100
1956	100	100	100	100	100	100
1957	100	100	100	100	100	100
1958	100	100	100	100	100	100
1959	100	100	100	100	100	100
1960	100	100	100	100	100	100
1961	100	100	100	100	100	100
1962	100	100	100	100	100	100
1963	100	100	100	100	100	100
1964	100	100	100	100	100	100
1965	100	100	100	100	100	100
1966	100	100	100	100	100	100
1967	100	100	100	100	100	100
1968	100	100	100	100	100	100
1969	100	100	100	100	100	100
1970	100	100	100	100	100	100
1971	100	100	100	100	100	100
1972	100	100	100	100	100	100
1973	100	100	100	100	100	100
1974	100	100	100	100	100	100
1975	100	100	100	100	100	100
1976	100	100	100	100	100	100
1977	100	100	100	100	100	100
1978	100	100	100	100	100	100
1979	100	100	100	100	100	100
1980	100	100	100	100	100	100
1981	100	100	100	100	100	100
1982	100	100	100	100	100	100
1983	100	100	100	100	100	100
1984	100	100	100	100	100	100
1985	100	100	100	100	100	100
1986	100	100	100	100	100	100
1987	100	100	100	100	100	100
1988	100	100	100	100	100	100
1989	100	100	100	100	100	100
1990	100	100	100	100	100	100
1991	100	100	100	100	100	100
1992	100	100	100	100	100	100
1993	100	100	100	100	100	100
1994	100	100	100	100	100	100
1995	100	100	100	100	100	100
1996	100	100	100	100	100	100
1997	100	100	100	100	100	100
1998	100	100	100	100	100	100
1999	100	100	100	100	100	100
2000	100	100	100	100	100	100
2001	100	100	100	100	100	100
2002	100	100	100	100	100	100
2003	100	100	100	100	100	100
2004	100	100	100	100	100	100
2005	100	100	100	100	100	100
2006	100	100	100	100	100	100
2007	100	100	100	100		

1976-1977 = "Wiederholungsstudien"  
 1978-1979 = "Neue Studien"

[illegible]

80-68212-20

1236 22, 1899

**VAN DINGEN**

1997	=	4,415	66,571	060	=	43,974	10063
1998	=	16,266	10063	060	=	251	10063
1999	=	37,246	10063	260	=	4,250	10063
2000	=	140					

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1971	=	300	200	=	500
72	=	300	200	=	500
73	=	300	200	=	500
74	=	300	200	=	500

2017/06/06 14:00:00

Case	Age	Sex	Height	Weight	Temperature	Pulse	Respiration	Blood Pressure	Heart	Lungs	Gastrointestinal	Genitourinary	Neurological	Other
1	20	M	170	65	37.5	72	18	110/70	Normal	Clear	Normal	Normal	Normal	Normal
2	22	F	160	55	37.2	68	16	100/60	Normal	Clear	Normal	Normal	Normal	Normal
3	25	M	180	75	37.8	78	20	120/80	Normal	Clear	Normal	Normal	Normal	Normal
4	28	F	170	60	37.4	70	18	110/70	Normal	Clear	Normal	Normal	Normal	Normal
5	30	M	190	85	38.0	80	22	130/90	Normal	Clear	Normal	Normal	Normal	Normal
6	32	F	180	70	37.6	74	19	120/80	Normal	Clear	Normal	Normal	Normal	Normal
7	35	M	200	95	38.2	84	24	140/100	Normal	Clear	Normal	Normal	Normal	Normal
8	38	F	190	80	37.8	76	20	130/90	Normal	Clear	Normal	Normal	Normal	Normal
9	40	M	210	105	38.4	88	26	150/110	Normal	Clear	Normal	Normal	Normal	Normal
10	42	F	200	90	38.0	80	22	140/100	Normal	Clear	Normal	Normal	Normal	Normal

**Particulars**

23001	1123	23001	5161	23001	5161	23001	5161
23001	111	23001	5161	23001	5161	23001	5161
23001	111	23001	5161	23001	5161	23001	5161
23001	111	23001	5161	23001	5161	23001	5161

0487 01245750

1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349</
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$\frac{1}{2} \log \frac{1}{2} = -1$

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100





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\*ABLATED NEUTRON SOURCE DATA MAIL-701

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10-751 000 816307/3612687+0P

(COMMAND) ( 29 SEP 73 )

## REFERENCE DATA

SPOT = 4.4119 80.17. 1000 = 43.9974 INCHES  
UNIT = 10.2000 INCHES 1000 = .0000 INCHES  
SPOT = 37.9349 INCHES 2000 = 16.2700 INCHES  
SCALE = .5000

RUN NO. 0001/0 BNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	0	WIM	WCH	WIM	QCH	WIC	DC	WPI	WPO	WC
.201	-3.800	65.0000	.4340	.4340	.4320	.4320	.3990	.3990	1.6220	1.6070	.2420
.202	.100	65.7100	.4350	.4350	.4320	.4320	.3920	.3920	1.6180	1.6110	.2420
.203	5.900	61.2700	.4310	.4310	.4310	.4310	.3990	.3990	1.6140	1.6020	.2430
.204	15.800	61.8100	.4280	.4280	.4280	.4280	.3940	.3940	1.6180	1.6030	.2460
.205	19.900	62.2400	.4280	.4280	.4210	.4210	.3980	.3710	1.6180	1.5130	.2490
.206	16.800	62.1000	.4300	.4300	.4210	.4210	.3980	.3970	1.6100	1.4800	.2490
.207	10.100	62.5000	.4300	.4300	.4210	.4210	.3980	.3970	1.6140	1.4870	.2490
.208	16.900	62.3700	.4280	.4280	.4240	.4240	.3990	.3980	1.6130	1.4590	.2490
.209	GRADIENT	-5.0000	.4314	.4314	.4310	.4310	.3990	.3990	1.6111	.0000	.0000

10-751 000 816307/3612687+0P

(COMMAND) ( 29 SEP 73 )

## REFERENCE DATA

SPOT = 4.4119 80.17. 1000 = 43.9974 INCHES  
UNIT = 10.2000 INCHES 1000 = .0000 INCHES  
SPOT = 37.9349 INCHES 2000 = 16.2700 INCHES  
SCALE = .5000

RUN NO. 0001/0 BNL = .20 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	001	000	0011	0012	0004	0002	WIM	WPI	WPO	WC
.201	-3.800	-2.7200	-2.9900	-2.7000	-2.7000	-2.9600	-2.4000	.3980	.3980	.3980	.3980
.202	.100	-2.7400	-2.9800	-2.7400	-2.7400	-2.9600	-2.4000	.3990	.3990	.3990	.3990
.203	5.900	-2.7400	-2.9800	-2.7400	-2.7400	-2.9600	-2.4000	.3990	.3990	.3990	.3990
.204	15.800	-2.7400	-2.9800	-2.7400	-2.7400	-2.9600	-2.4000	.3990	.3990	.3990	.3990
.205	19.900	-2.7400	-2.9800	-2.7400	-2.7400	-2.9600	-2.4000	.3990	.3990	.3990	.3990
.206	16.800	-2.7400	-2.9800	-2.7400	-2.7400	-2.9600	-2.4000	.3990	.3990	.3990	.3990
.207	10.100	-2.7400	-2.9800	-2.7400	-2.7400	-2.9600	-2.4000	.3990	.3990	.3990	.3990
.208	16.900	-2.7400	-2.9800	-2.7400	-2.7400	-2.9600	-2.4000	.3990	.3990	.3990	.3990
.209	GRADIENT	-5.0000	.4314	.4314	.4310	.4310	.3990	.3990	1.6111	.0000	.0000

NR-T01 ORB B16C507J3612J87+CP

(EDM490) ( 29 SEP 75 )

## REFERENCE DATA

HRP7 = 4.4119 88.17. HARP = 43.9974 INCHES  
 LRP7 = 19.2999 INCHES YARP = .0000 INCHES  
 BRP7 = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 490/ 0 RUL = .20 GRADIENT INTERVAL = -5.00/ 5.00

NOCH	ALPHA	Q	PRT11	PRT12	PRT13	PRT14	PRT15	PRT16	PRT17	PRT18	PRT19
.201	-3.000	60.04000	.99970	.99970	.99910	.99830	.99550	.99830	.99910	.99870	.99920
.201	.100	60.71000	.99930	.99850	.99280	.99450	.99320	.99570	.99570	.99740	.99860
.202	5.300	61.27100	.99780	.99680	.99550	.99550	.99830	.99290	.99400	.99860	.99760
.202	10.000	61.61200	.99690	.99680	.99850	.99850	.99830	.99490	.99690	.99940	.99970
.203	15.900	62.24700	.99920	.99910	.99910	.99900	.99890	.99780	.99870	.99910	.99940
.203	16.000	62.16700	.99920	.99920	.99920	.99920	.99920	.99870	.99890	.99920	.99950
.204	16.100	62.50900	.99970	.99970	.99970	.99970	.99890	.99810	.99870	.99920	.99920
.204	16.200	62.37100	.99920	.99920	.99910	.99910	.99910	.99820	.99890	.99910	.99930
GRADIENT	-.04297	-.00011	-.00032	-.00032	-.00069	-.00103	-.00082	-.00070	-.00092	-.00035	-.00011

NR-T01 ORB B16C507J3612J87+CP

(EDM490) ( 29 SEP 75 )

## REFERENCE DATA

HRP7 = 4.4119 88.17. HARP = 43.9974 INCHES  
 LRP7 = 19.2999 INCHES YARP = .0000 INCHES  
 BRP7 = 37.9349 INCHES ZARP = 16.2000 INCHES  
 SCALE = .0405

## PARAMETRIC DATA

BETA = .000 GPP = 154.000  
 DE = .000 DA = .000  
 X/L = .000 L/P = 4.000  
 NBT = .000 RD = 3.000

RUN NO. 490/ 0 RUL = .20 GRADIENT INTERVAL = -5.00/ 5.00

NOCH	ALPHA	Q	PRT01	PRT02	PRT03	PRT04	PRT05	PRT06	PRT07	PRT08	PRT09
.201	-3.000	60.04000	.99970	.99970	.99910	.99830	.99550	.99830	.99910	.99870	.99920
.201	.100	60.71000	.99930	.99850	.99280	.99450	.99320	.99570	.99570	.99740	.99860
.202	5.300	61.27100	.99780	.99680	.99550	.99550	.99830	.99290	.99400	.99860	.99760
.202	10.000	61.61200	.99690	.99680	.99850	.99850	.99830	.99490	.99690	.99940	.99970
.203	15.900	62.24700	.99920	.99910	.99910	.99900	.99890	.99780	.99870	.99910	.99940
.203	16.000	62.16700	.99920	.99920	.99920	.99920	.99920	.99870	.99890	.99920	.99950
.204	16.100	62.50900	.99970	.99970	.99970	.99970	.99890	.99810	.99870	.99920	.99920
.204	16.200	62.37100	.99920	.99920	.99910	.99910	.99910	.99820	.99890	.99910	.99930
GRADIENT	-.04297	-.00011	-.00032	-.00032	-.00069	-.00103	-.00082	-.00070	-.00092	-.00035	-.00011